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A Monthly Newspaper published in the interests of the Berry Growers, Deciduous, Citrus, Dried and Canned Fruitgrowers, and Market Gardeners.

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The Editor and Staff Extend

The Season's Greetings

TO OUR MANY READERS THROUGHOUT AUSTRALIA, NEW ZEALAND AND OTHER PARTS OF THE WORLD. WE EXPRESS THE HOPE THAT XMAS 1937 WILL BE A HAPPY ONE FOR ALL, AND THE YEAR 1938 A BRIGHT AND PROSPEROUS ONE.

EDITORIAL

BRITISH PREFERENCES.

MUCH PUBLICITY has been given in the press to proposals for a trade pact between Great Britain and the United States of America. Apparently general principals have been adopted by both countries, while negotiations are now pending as to details.

Underlying the whole plan appears to be an effort to secure closer co-operation and better mutual understanding between the two great democracies of Great Britain and U.S.A. in these troublous days through which the world is passing.

Credit must be given to the statesmen of both nations for their sincerity and their long-range policy to secure peace and progress for their people.

It is in the working out of details of the trade pact that the utmost care will need to be shown. There is a strong feeling throughout the producers of the British Empire that nothing must be done to abrogate the Ottawa Agreements. Several sections of primary industry in Australia now enjoy preferences in Britain against similar products from foreign countries, and this is as it should be. As regards the fruit industry, Australia certainly needs the present limited protection of 4/6 per cwt. on Apples and Pears imported into the United Kingdom. As a matter of fact, strenuous efforts have been made to have this preferential tariff increased to 7/6 a cwt. because of the lessened ratio of the dollar to sterling now than when the agreement was made in 1932. Yet delegates at the recent conference of the Apple and Pear Council were brought face to face with the viewpoint that even the present modest preferential tariff may be reduced or done away with altogether. The statement made by the Assistant Minister of Commerce, Mr. Thorby, when opening the conference, foreshadowed the reviewing of the Ottawa agreements, although this statement was qualified by the assurance that it was expected that better conditions than those now operating would result. The industry will be

glad to know what these better conditions are likely to be.

The Prime Minister has given an assurance that producers now enjoying protection under the Ottawa Agreement will not be called upon to suffer hardships in this connection.

According to reports, Canadian fruitgrowers will strongly resist any proposal for a reduction of the present preferential tariff in Great Britain on Apples and Pears as provided for under the Ottawa Agreements.

At the present moment the situation is vague and obscure. The fruit industry looks to the Prime Minister and the Cabinet to see that Australian fruit producers will continue to enjoy at least the present protection.

This feeling of insecurity regarding any proposed revision of the Ottawa Agreements is also felt by producers of canned and dried fruits. For some time past the canned fruits industry has been urgently requesting better preferential treatment than that which is now operating under the Ottawa Agreements. Instead of the present ad valorem duty, the canned fruits industry has requested protection on a straight out per cent. tariff basis.

What is the actual situation?

Producers are entitled to know from the Government just what are the proposed alterations to the Ottawa Agreements, and what hypothetical advantages are offered in exchange.

Mr. J. G. B. McDonald, M.L.A., brought this matter forward in the Victorian Parliament urging the Ministry to endeavour to safeguard the country's primary industries in the proposed revision of trade treaties between Britain and U.S.A. Mr. McDonald said that the current negotiations threatened to act to the detriment of Empire producers, especially the dried and canned fruits industry, which has just succeeded in attaining a degree of stability with the aid of preferential treatment. The market in England should offer its Empire producers substantial preferences over all others.

The Premier (Mr. Dunstan), in reply, stated that the responsibility

belonged to the Commonwealth Government, but he hoped that State Governments would be taken into consideration. He would bring Mr. McDonald's representations under the notice of the Commonwealth authorities, as it was a matter of major policy.

The present situation is extremely disturbing, and the fruit industry looks to the Commonwealth Government to see that the rights of producers are adequately safeguarded.

APPLE AND PEAR MARKETING.

GROWERS of Apples and Pears in Australia are facing a major crisis. Statistics produced at the Apple and Pear Council conferences reveal that the production of these fruits is steadily on the increase, while export markets are definitely limited. The loss of the German market of over a million bushel cases of Apples—to quote one instance alone—is of the utmost seriousness. This is a matter of policy between Governments for which the producers are not responsible.

Whilst earnest efforts are being made to develop every possible export market, the problem remains of effecting the disposal of the balance in Australia.

Producers now realise that Apples can no longer be sold at home and abroad simply because they are Apples, but there must be continued specialisation in the matter of selected varieties. Far too many nondescript varieties are still being produced.

Then, as regards grade standards, it is noted that in some States there are enforceable regulations preventing lower grade fruits from being marketed when there is a definable surplus of the higher quality fruit available. Producers are now seeking for the best method by which this principle can be applied to Apples and Pears. Possibly a period can be set by which all the defined lower grades can be marketed, thus only higher quality fruit need be cool stored for subsequent marketing.

By educational publicity and delivering to the public the quality of fruit desired, public demand can be stimulated and the industry lifted to a higher plane.

Here again the subject of varieties needs to be considered. Concentrated publicity could be given to varieties when they are at their best.

These matters are engaging the attention of far-seeing growers in facing up to the inescapable facts of the situation.

BERRY PESTS AND DISEASES.

Government Asked to Conduct Research.

A deputation of berry growers waited on the Minister for Agriculture (Mr. Hogan) during the month to ask that more research be undertaken by Departmental Officers into diseases and pests affecting berry production. It was stated that in Victoria berry production had dropped by 50 per cent. in recent years, owing to the depredations of pests.

Specific problems included Strawberry Wilt, White Root in Raspberries and destruction of Gooseberry plants by the Elephant Beetle. Mr. Hogan contended that the Department was not neglecting these matters, but,

unfortunately, the results of research still being undertaken by the Department was not showing any startlingly beneficial results.

PERSONAL

Mr. S. R. McColl, who was transferred from the Victorian Department of Agriculture to the Office of the Agent-General in London, has won appreciation for the value of the report submitted by him regarding fruit arrivals in London.

Mr. K. Weeding, manager, S. Perry & Co., Melbourne, who recently returned from a visit to the United Kingdom and the Continent brought with him some excellent movie camera "shots" which have been made an interesting film. Mr. Weeding has shown these moving pictures to appreciative audiences of fruitgrowers in several parts of Victoria.

Mr. Walter Musgrove, Senior Vice President of the N.S.W. Chamber of Fruit and Vegetable Industries, completed a 2,000 miles tour of the fruit growing areas of N.S.W. and Northern Victoria during November. Mr. Musgrove believes in keeping in personal touch with growers, and makes periodical trips by car every year to orchardists in Victoria and N.S.W.

Capt. W. J. Wade, Australian representative for the Port of Manchester, recently recovered from an illness, and is recuperating at the Blue Mountains.

Well-known Victorian botanists who are shortly to retire from duty include Mr. P. R. H. St. John Systematist to the Botanic Gardens and the National Herbarium, Mr. J. W. Audas, Senior Botanist at the National Herbarium, and Mr. E. E. Pescott, of the Department of Agriculture. With the recent death of the late Professor Ewart, the loss of these ardent botanists will be felt in Victoria, although their service will long be remembered.

Mr. F. R. Mellor, fruit exporter, of 440 Elizabeth-street, Melbourne, and a member of the Executive of the Victorian Fruit Marketing Association, has just returned from a visit abroad. Mr. Mellor has compiled a very interesting record of his observations, which will be published next issue.

In 1900, about 30,000 people were employed in food manufacture in Australia, and received £2,000,000 wages. Now 53,000 men and 17,000 women are so employed, and earn up wards of £13,000,000.

In 1900 also, 90 factories produced mostly jams, pickles and sauces, and employed 3,500 hands. Now there are 122 similar factories employing 4,200 workers.

SHOWS TO COME.

Somerville (Vic.)—March 16, 1938
Amiens (Queensland)—March 5, 1938.



Plant the best trees—market the finest fruit. Stocks guaranteed disease-free and true-to-name. All varieties in season: Apples, Pears, Plums, Peaches, Apricots, Cherries, Almonds, Citrus Fruits and Ornamental trees. Write for catalogue and advice.

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(INCORPORATED IN N.S.W.) ALL STATES:

Letters to the Editor

REGULATING THE APPLE CROP.

(The Editor "Fruit World.")

In reply to your invitation to discuss "Small Grower's" letter re the Australian Apple market, in the October issue of your journal, I beg to put forward the following comments and suggestions.

In years of moderate crops the efficient grower can generally make fair profit from his operations, but finds that when nature provides a glut crop it is very hard to square the ledger. The logical remedy appears to be to reduce a prospective glut crop to one that can be sold profitably on the existing markets. In a nutshell, it is more profitable to receive 4/- per case on the orchard for 1,000 cases of fruit than 2/- for 2,000.

I suggest the following plan for bringing about the regulation of the Australian Apple crop:—

1. The creation of an Australian-wide body, to be known perhaps as the "Apple Crop Regulation Committee," whose duty it would be to estimate, as early in the season as possible, what percentage of the coming crop should be retained on the trees to meet market requirements at fair prices, and to arrange that the balance should be stripped from the trees; their decision should be reached not later than November 30.

2. The decision of the Australian Committee should be policed by the Agricultural Departments in each State, which should have the power to levy up to 1d. per case of marketed fruit for expenses and as a hail insurance fund.

3. In order to keep badly hail-marked fruit off the market, these should all be stripped and the grower compensated from such fund.

4. All Apple orchards to be registered and no more planting allowed except for replacements and up to 15 acres each for orchardists' sons.

There is no doubt that in this year, for instance, if every grower selling his Apples in Australia had reduced his crop by 30 per cent. last Spring, we would all have received more money for what was left than we are getting for the full issue; what was needed was some authority to make us all do the wise thing.

This proposal would cost the individual grower nothing to put into practice, as the cost of stripping the trees would be offset by not having to spray them with arsenate of lead. It would also have the effect of vastly improving the quality of the crop in general, as a grower, on receiving orders to strip enough trees to reduce his crop by, say, 30 per cent., would naturally strip those with a light crop and of the poorer varieties. It would also have the effect of helping to eliminate the "on" and "off" year cycle, as trees stripped one year would have a full crop the next.

The regulation of output is an accepted practice in other industries. We have examples in Australia in rice and sugar growing, and overseas in rubber, tin and diamonds. In South

Africa no new diamond fields are allowed to be worked, and armed guards patrol new areas to ensure that they are not worked and only enough stones are taken from established mines to supply the market at extortionate rates. This is possible because the industry is controlled by a few hard-headed men; whereas we Apple growers are many and not organised.

I offer the above rough outline of a practical scheme which I am sure would have a beneficial effect on our industry, and would like other growers to comment on it with a view to evolving a sound working proposition that our organisations could put before our Governments for the necessary legislative action.—Yours faithfully,

(Signed) F. C. PYKE.
Ringwood, 23/11/37.

POWER ALCOHOL FROM WASTE FRUIT.

(To the Editor, "Fruit World.")

Your enthusiastic South Australian correspondent, "Done My Bit," should be supported by every true Australian if what he says regarding power alcohol can be substantiated.

If power alcohol is superior, in some respects, to petrol, and can be produced in England from waste fruit and other products at 6d. per gallon, and in the Dominions for 3d. per gallon (if the restrictions of revenue authorities were removed), then it is a reflection on our authorities that such restrictions are not removed.

At the present time fully one half of the fruit grown is wasted, and this waste constitutes a menace to the interests of growers. Forming a "carpet" on our orchard lands, it attracts thieves in the metropolitan districts. These reject the waste and help themselves higher up. In all orchards the "carpet" breeds moths to continue their work of destruction in the following season. If, instead of being a menace, this Codlin-infested, limb-bruised, bird-picked, crinkled and undersized fruit could be made a source of revenue to the grower and wealth to the nation, what sort of people are we to take no action to produce this wealth?

There is undoubtedly a tendency on the part of the authorities to glory in the receipt of immense revenues from the operation of the tariff, especially on such a commodity as petrol, instead of employing labor to produce our own requirements. This amounts to a scandal when the imports are derived from countries which rigidly exclude our own products. It seems deplorable that there should be so much production, so much waste and so much want through lack of effective government.

Most of our ailments—lack of a sufficient number of mouths to feed, bodies to weal, and houses to be inhabited, etc.—are due to this cause, and it behoves everybody to stir themselves up and do something to gal-

vanise our legislators into action if we are to remain in possession of this glorious but sparsely populated country.—Yours, etc.,

OTTO RUPP.
Yarrambat, November 14, 1937.

POWER ALCOHOL FROM WASTE FRUIT.

(The Editor, "Fruit World.")

I was much interested in the letter discussing "Power Alcohol" appearing in your November issue, which the writer appears to imagine would, if carried into effect, materially assist the fruit industry, but would it?

Power alcohol can be produced from waste Apples, but can it be done economically, or would the product cost far more than its value to the community?

Good Apples, if crushed and treated with the most up-to-date machinery, will yield about 2½ to 3 gallons of juice from a bushel of 50 lbs. of Apples. Immature, sour, or rubbishy stuff is of little use. This juice is fermented in large vats where the sugar contents are converted into alcohol, which is then separated by the process of distillation.

The quantity of alcohol obtained depends upon the sweetness of the original article and varies from 2 per cent. to 7 per cent., or say, an average of not more than 5 per cent. It would therefore take 7 bushels of Apples to produce one gallon of power alcohol which at wholesale rate would be worth, at most, 1/3 per gallon, or 2 pence worth from each bushel, and we must not forget that cost of manufacturing, interest, etc., must be paid for.

If 1/- per 50 lbs. were paid for the Apples and the spirit was sold in bulk in competition with petrol, a Government Bounty of at least 7/- per gallon would be required to enable the manufacturer to pay his way. In other words, power alcohol from waste Apples would cost 8/- per gallon to produce.—Yours sincerely,

"COMMON SENSE."

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SOUTH AFRICAN FRUIT EXPERT.

Studies Australian Methods.

Professor O. S. H. Reinecke, Professor of Pomology and head of the Government College of Agriculture at Stellenbosch, West Cape province, South Africa, who is visiting Australia to study fruit growing conditions in the different States, and more particularly the behaviour of varieties of deciduous fruit trees, called on the Superintendent of Horticulture, Mr. J. M. Ward, and the Senior Inspector, Mr. F. Reed during the month. Professor Reinecke, who later will proceed to the Argentine, is visiting all horticultural experimental stations and will report back to his Government after a comprehensive study of fruit growing in other countries.

GAS STORAGE OF FRUIT.

Further Commercial Export.

Mr. F. Payne, of the Elgin Gas Co-operation, Sydney, was successful in his recent experiments in landing safely in London, commercial consignments of Oranges, Passionfruit, Tomatoes, etc.

Further experiments are being conducted, and Mr. Payne is leaving for England on the S.S. "Melbourne Star" in the very near future, when he will take with him Peaches, Pineapples, Cherries, etc., also meat.

Further reports as to the condition of the fruit on arrival will be awaited with great interest.

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SAFE - - - Because it prevents Leaf Scorch.

CERTAIN - - Because it gives definite control of Fungus Diseases.

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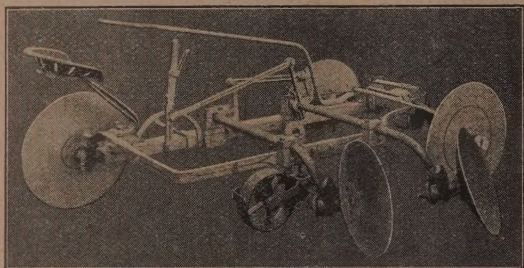
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Double Furrow



The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.

Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

Further particulars apply . . .

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Fruit Research Work

Versatile Investigations in N.S.W.

THE New South Wales Department of Agriculture has Experiment Orchards established in the following districts—Bathurst, Wagga, Hawkesbury Agricultural College, Richmond, Grafton, Leeton, Glen Innes and Narara.

The main investigations that are being carried out at the respective stations are:—

Bathurst.—Stock investigations and methods of propagation with Apple, Pear and stone fruits. Pruning, control of pests and diseases, fertilising, prevention of soil erosion on hill-sides by planting on contours and the construction of contour banks. Evolving of new varieties of pome fruits by cross-fertilisation and selection. Investigations to ascertain the most suitable varieties of Peaches and Grapes for the district. The introduction and testing of new varieties imported from overseas countries and Australian States. Pollination studies. The processing of pome fruits for the removal of arsenical residue and the effect of the different washes upon the storage life of various varieties. Propagation work with pome and stone fruits and Walnuts is in hand. Biennial cropping of fruit trees is also being investigated.

Wagga.—Stock investigations and methods of propagation, and testing of varieties of Prunes, Almonds, Olives and Grape vines. Pollination studies with Almonds and Olives. Manufacture of olive oil and pickled Olives. Processing of dessert Prunes. Planting of trees upon contours and construction of contour banks to prevent soil erosion. Variety and stock investigations with pome fruit. The control of "Skeleton" weed in or-

chards. Control of diseases and pests. Fertilising of orchard lands.

Hawkesbury Agricultural College, Richmond.—Bud selection and stock investigations with citrus fruits. Stock investigations with Grape vines. Testing of stone fruit and Strawberry varieties. Pollination and breeding work with stone fruit and Strawberries. Control of pests and diseases.

Grafton.—Stock investigations, variety and bud selection investigations with citrus fruit. Passion Fruit and tropical fruit investigations including methods of vegetative propagation. Control of pests and diseases. Pollination studies with Pecan Nuts. Selection studies and vegetative propagation of the Australian Nut.

Leeton (Rice Research Station).—Bud selection and stock investigations with citrus fruits. Fertiliser experiments with citrus. Plant breeding work with stone fruits and Grape vines. Testing out of new varieties of citrus, pome and stone fruits, Grape vines and nuts.

Glen Innes.—Apple, Pear and Cherry investigations in relation to stock and methods of propagation. Twisting of limbs of Gravenstein Apple. Control of pests and diseases. Control of Internal Cork of Apples by the use of boron—by soil applications and spraying of trees—investigations are being carried out to determine the most suitable period and the rate at which borax should be applied, period over which the applications of varying amounts of borax applied to the soil will be effective. The spraying of the trees with varying strengths of borax solutions to the foliage of the trees at different times. Investigations are being carried out with the

object of controlling the cracking and development of Cork in Pears. Pollination studies and breeding of new varieties of pome fruits and Cherries.

Narara.—Propagation of stocks from seeds and by vegetative methods of pome and citrus fruits. Bud selection work with citrus fruits. The testing out of various varieties of citrus fruits on numerous stocks. Propagation and testing of Pecan Nuts. The propagation of phylloxera-resistant Grape vine stocks. Investigations are being made into the control of insect pests and fungous diseases of citrus fruits.

In addition to the work being carried out at the Departmental Experiment Stations, investigations into the control of insect pests and fungous diseases are being carried on in many private orchards throughout the State. Storage and transport investigations with stone, pome and citrus fruits are being undertaken with the assistance of co-operative and proprietary cold stores and packing houses.

In association with the Council for Scientific and Industrial Research, storage and transport investigations are being made with Oranges, Mandarins and Grapefruit.

Experimental cold stores and laboratories are being erected at Homebush conjointly by the Council for Scientific and Industrial Research and the Department of Agriculture, where, on completion, problems concerning the storage of various types of fruit and the manufacture of fruit by-products will be investigated.

Manurial experiments, stock investigations, and the testing out of new varieties as well as demonstration plots in the control of diseases are also being undertaken in many private orchards throughout the State.

On the north coast special investigations are under way in connection with Banana diseases and pests. The testing of many varieties of Bananas is also being undertaken.

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SUGAR FROM APPLES.

Another By-Product.

In the persistent search for by-products from culled fruit it is being discovered that many forms of palatable drinks can be had from Apples, but laboratory tests made in U.S.A. now prove that sugar can be added to the growing list of by-products. Apple growers and processors in Virginia have been experimenting, and find that, owing to the high cost of transportation, a profitable use can be made of cull Apples by converting them into sugar that may be acceptable to local and distant consumers.

It is claimed that Apples provide more sugar content than do sugar beets, and attempts are to be made to secure a footing for Apple sugar on the local market. Already, Apple jack, vinegar and Apple juices are being manufactured, and if sugar is found to be obtainable from Apples in commercial quantities, a new era will open for growers.

CANADA'S FRUIT PRODUCTION.

Dropped in 1936.

With a total gross value of \$212,340,000 for all agricultural commodities produced in Canada in 1936, the highest figures are recorded since 1930. It was 12 per cent. above 1935 and 38.4 per cent. above the lowest point in the depression years.

Not all commodities, however, showed an increase as flax fibre, tobacco, fruit and vegetables all suffered a decrease.

The gross value to the Dominion in 1936 for fruit and vegetable production was \$8,564,000, a decrease of \$1,171,000 below 1935. Tobacco dropped by \$316,000 and flax by \$4,000. Other commodities showing a decided increase were field crops, dairy products and farm animals, in that order.

Spraying for Insect Pest and Disease Control

Codlin Moth Control

Timing Cover Sprays by the use of Lures

IN Victoria, there are usually two broods of moths which emerge in late Spring and Summer. The precise time and duration of emergence of these broods may vary considerably from season to season, according to climatic conditions, so that any programme of spraying should take these facts into consideration. Excellent control of Codlin Moth could no doubt be obtained by very frequent and regular spraying throughout the season, but such a system would involve surplus sprays. A reduction in the number of sprays, on the other hand, without reference to the most effective times of application, may result in loss of control. Hence the value of timing sprays in order to maintain control with a minimum number of sprays.

Further, the adoption by many growers of Summer white oils, which are essentially ovicides (or egg-killing sprays), has made it imperative that such sprays be carefully timed to coincide with the periods during which eggs are abundant, advises the Department of Agriculture Circular No. 10.

In every district where demonstration plots are established, the orchard supervisor will advise growers when to apply sprays. Their advice will be based chiefly on lure records, and will be posted up in prominent places, such as post offices, packing sheds, cool stores, etc., or published in local papers or in the form of circulars. Growers are urged to take advantage of the above services wherever possible. It is further suggested that growers familiarise themselves with the use of lures so that after one or two seasons' experience with them, they will be able to apply cover sprays to the best advantage.

How to Establish Lures.

Lures consist of wide-mouthed glass or porcelain jars of about one pint capacity, containing a moth-attracting fluid such as malt vinegar, cider, cider vinegar, naturally fermented Apple juice, molasses, etc. A 10 per cent. solution (1 pint in 10) of one of these materials should be made up, and the lures recharged once a week during the season. It is important that the lures be kept clean

and the lure material fresh. Excessive fermentation resulting in the production of a scum may be prevented by the addition of a trace of blue-stone.

It is recommended that 20 lures be distributed over one or two acres in a typical portion of the orchard. They should be suspended in the upper part of the tree rather than the lower for the best results. The method of suspension is to twist a length of wire around the jar and form the ends into a hook so that the jar can be taken off the tree for inspection and recharging.

Six gallons of malt vinegar or other attractive fluid will maintain 20 pots for a period of six months. A 10 per cent. solution is obtained by adding 1 part by volume of the material to 9 parts by volume of water.

How to Use Lures.

The lures should be inspected at least once a week and a record kept of the total number of moths trapped during that week. These moths should be removed from the lure pots so that the number trapped in the succeeding period can be determined.

The lures prove attractive to many varieties of insects, but the Codlin Moth can be distinguished readily from other moths. It is small, measuring from $\frac{1}{2}$ inch to $\frac{3}{4}$ inch across the outspread wings, which are of a general brown color banded with grey. The most distinctive feature, however, is the possession of a large, oval dark brown spot with copper colored streaks near the tip of each forewing.

The records should be kept either in the form of a table or a graph, so that the fluctuations are readily apparent. The latter method is a very effective one for showing these fluctuations, as is evident from the examples in this circular.

Growers would find it instructive to prepare graphs of this sort. Briefly, the procedure is to prepare a sheet of paper with a horizontal scale divided into weeks and a vertical scale divided into intervals, each representing, say, 20 moths. The figure for each week's catch is taken on the vertical scale and carried across to a point vertically above the week it re-

presents. Each point is joined to the one before it by a straight line, and so the graph takes form.

It will be noticed that during the early part of the emergence of the main broods, that the number of moths trapped is relatively low. Eventually a maximum or peak emergence is reached because conditions have become favorable for the emergence of the majority of the moths of the brood. Thereafter the number of moths emerging declines, and this is reflected in lower lure catches.

The life of an adult moth varies considerably, but for the majority is of the order of a fortnight. Even when temperature conditions are favorable, a period of 2-4 days elapses after emergence before the moths begin to lay eggs. Eggs are laid most freely during warm evenings, when the temperature is in the region of 60 deg. F. or more, and then have an incubation period of 7-14 days, according to temperature conditions.

Thus it can be seen that following the emergence of each brood of moths there is a corresponding period during which eggs are laid, and further, that the number of eggs fluctuates in much the same way as the number of moths emerging. Normally the main peak of egg abundance occurs about 10 days after the peak of the Spring brood of moths, and about 7 days after the peak for later broods. These periods may, however, be shorter or longer, according to weather conditions.

It is absolutely essential to provide adequate protection for the fruit at the peak periods. It is important when keeping lure records to observe as accurately as possible the exact date on which moth emergence reaches a maximum, so that the spray can be most efficiently timed.

It must not be thought that complete control of each brood is to be obtained by applying sprays only to follow the main peak periods. This may be possible where the emergence is very clearly defined or the initial population low. The emergence of a brood takes place over a period of 6-8 weeks, and is accompanied by a period of somewhat longer duration, during which eggs are laid and hatching. Consequently, adequate protection must be provided throughout this period with particular attention to the

peak periods. It would be erroneous, for instance, to await the development of the main peak of emergence before applying a cover spray, because the peak may take 3, 4, or even 5 weeks to develop, and during this period there would already be sufficient justification for spraying.

The Sprays.

A most important factor to consider in this regard is the effective period of the spray applied. Lead arsenate thoroughly applied should provide an effective cover for a period of two to three weeks, but such cover may be seriously depleted by rain and wind. In the former case the use of good stickers in moderate quantities is helpful, while in the latter case more frequent spraying is necessary. With lead arsenate the aim should be to maintain a good cover throughout the critical periods, and one that is most efficient at the peak periods for eggs. White oils have an effective period of not longer than 7-10 days to which may be added the average incubation period of eggs laid after the oil has become ineffective. Thus the total effective period, after spray application, is a little more than two weeks.

The method of attack each season, therefore, is to apply a calyx spray. Then, as soon as it is apparent that the Spring brood of moths is emerging freely and an interval has been allowed for egg-laying and incubation, apply a cover spray. Thereafter, renew the cover at intervals by taking into consideration the effective life of the spray and the activity of moths as shown by lures. Two to three cover sprays should effectively control each brood.

When dealing with peak periods it is necessary from a practical point of view to complete the application of a spray before the majority of eggs commence to hatch and therefore to start spraying a little earlier than would be most effective in some parts of the orchard. It is recommended that cover sprays of lead arsenate applied to deal with peak emergence of the Spring brood of moths should be completed during a period 7 to 16 days after the peak. For the later Summer brood the incubation period of eggs is considerably shorter, and the spray should be completed during a period of 5 to 10 days after the peak of emergence.

With white oils (ovicides) similar principles hold, i.e., do not commence



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THE BETTER THE PRICE**

A proper spray programme is recognised today as an economic necessity. When free from insects and fungus, trees give bigger crops of better, cleaner, more saleable fruit. Spraying is an investment, not an expense. And the finest investment is the use of the finest spray materials to a scientific programme. With Arsenate of Lead and Bordeaux, Gargoyle White Spraying Oil will mix perfectly, and besides doing a perfect killing job itself, will make both these sprays more efficient.

Gargoyle WHITE Spraying Oil

to spray until moths are laying eggs freely. An important point with oil is that once spraying has been commenced it should be completed in as short a period as possible, say, 5-6 days, because the oil becomes less effective as the eggs become older. Moth activity between broods is usually low, but spasmodic emergences such as can be noted in the examples in this circular may justify a spray if temperature conditions are favorable for egg-laying.

A final word in regard to the application of sprays. However well timed the application, good results cannot be obtained by careless application. Every part of the tree should be reached by the spray. A critical examination of the trees after spraying will reveal any carelessness in application.

Hawaii employs 28,150 persons in Pineapple production and canning, in addition to the regular staffs in the Pineapple canneries. The seasonal workers receive approximately \$495,000 per month for a 3-month season.

LIGHT TRAPS FOR CONTROLLING INSECT PESTS.

Experiments with light traps for the control of insect pests are being conducted in America. A helical-shaped light surrounded by live wires is set up in the orchard, vineyard or any insect infested area.

The alternate wires are connected through high tension porcelain insulation to the terminals of a transformer. When an insect, attracted by the light, falls against the wires, the current is shortcircuited through the insects, which is immediately killed.

As each color attracts different kinds of insects, tests are being made to ascertain the color of the lights required to trap each type of insect pest. By this method harmless and beneficial insects are not destroyed. It has been established that a pale blue light attracts Codlin Moths and Grape leaf hoppers. It is necessary to find out how high the insects fly,

and when they fly; also, only winged night-flying insects are lured into these traps, and then only when weather conditions permit.

In spite of these difficulties, however, light traps should eventually find their way into Australian orchards and should be of material assistance in the controlling of insect pests.

CALIFORNIA'S FRUIT HARVEST.

1,000,000 Tons in 1936.

During 1936, California's total production of the main varieties of deciduous fruits amounted to over one million tons. Of this quantity 411,200 tons were absorbed in canning, 178,500 tons shipped out of the State, 109,550 tons consumed within the State, and 377,000 tons were dried.

The disposition of the main varieties was as follows (in tons):—

	Apricots.	Cherries.	Peaches.	Plums.	Pears.
Fresh, shipped out	5,000	7,100	23,600	52,100	89,000
Fresh, used in State	11,500	4,850	56,300	10,600	26,400
Canned	52,700	3,300	280,900	1,300	75,000
Dried	177,200	—	155,200	—	44,600

RED SCALE.

Parody on "Red Sails in the Sunset."

Red scales on the Orange
Far up on the tree,
I'll carry my spray can
Up quickly for thee;

You came with the dawning
All day I've been blue,
Red scales on the Orange
I'm spraying for you.

More spray I shall borrow,
Make straight for your door,
You'll die by to-morrow
Then you'll go scaling no more;

Red scales on the Orange
Far up on the tree,
I'll carry my spray can
Up quickly for thee.

(Mrs. Fred Stewart, in "Pacific Rural Press.")

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Extract from "BETTER FRUIT," March, 1937, by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: CODLIN MOTH COVER SPRAYS—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

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Codlin Moth Control

Queensland Experiments Non-Arsenical Sprays Tested

IN reporting upon experiments undertaken in Queensland during the past few years, Mr. Hubert Jarvis, Research Officer, reports, in the "Queensland Agricultural Journal," upon the various methods of spraying adopted and the results that were obtained.

The need for a satisfactory substitute for lead arsenate in the control of Codlin Moth has been apparent for a considerable time. Various alternative sprays and spray combinations have been used more or less successfully, but lead arsenate, which is both cheap and usually reasonably efficient, is still the most widely used insecticide for this purpose.

In the Stanthorpe district, experiments with non-arsenicals for the control of the Codlin Moth were initiated in 1932, and a nicotine sulphate-white oil spray then proved slightly more efficient than lead arsenate, though much more expensive. Subsequent work in the 1933-34 season confirmed these experimental results, and also indicated that potash soft soap might have some value as a Codlin Moth insecticide. In the 1935-36 season, the pest was very prevalent, and even where a lead arsenate spray schedule was conscientiously adhered to by the grower, fruit losses were considerable. Hence when the moths are very numerous, lead arsenate is by no means adequate, and suffers the further disability that the numerous sprayings necessary, under such conditions, frequently leave undesirable residues which persist on the fruit until harvested.

In 1935-36, it was noted that the addition of a contact insecticide to the lead arsenate spray gave beneficial results. This, in conjunction with the known properties of the nicotine sulphate-white oil combination, suggested that further work on spray materials of a non-arsenical nature was justified. Additional evidence in support of this viewpoint was obtained on a plot used for fruit fly control experiments in 1935-36, as some of the sprays, e.g., colloidal sulphur-potash soft soap, incidentally gave quite good control of Codlin Moth. The more promising of these sprays were used in comparative trials during the season 1936-37.

Experimental Material and Methods in 1936-37.

The experimental plot comprised thirty Apple trees of the Rome Beauty variety, distributed in a single row. The Rome Beauty is a late maturing variety subject to Codlin Moth attacks over a relatively long period. Owing to the irregular incidence of frost damage in the orchard, the crop varied considerably from tree to tree, but the yield averaged two cases per tree. The season was comparatively dry throughout, though heavy rains fell on and about January 12.

The thirty trees were equally distributed among nine treatments, and a check, allowing for three replications and general randomisation. The treatments were as follows:—

A.—Bentonite sulphur-nicotine sulphate—2½ lb. bentonite sulphur: 1 pint nicotine sulphate: 80 gallons water: 2 oz. spreader.

B.—Colloidal sulphur-nicotine sulphate—2½ lb. colloidal sulphur: 1 pint nicotine sulphate: 80 gallons water: 2 oz. spreader.

C.—Commercial lime sulphur—1 gallon lime sulphur: 50 gallons water: 2 oz. spreader.

D.—Commercial lime sulphur-nicotine sulphate—1½ gallons lime sul-

phur: 1 pint nicotine sulphate: 80 gallons water: 2 oz. spreader.

E.—Thiodiphenylamine — 2½ lb. thiodiphenylamine: 80 gallons water: 2 oz. spreader.

F.—Nicotine sulphate-white oil—1 pint nicotine sulphate: 1 gallon white oil: 80 gallons water.

G.—Potash soft soap*—10 lb. potash soft soap: 80 gallons water.

H.—Lead arsenate—2½ lbs. lead arsenate: 80 gallons water: 2 oz. spreader.

I.—Colloidal sulphur-potash soft soap—2½ lb. colloidal sulphur: 10 lb. potash soft soap: 80 gallons water.

J.—Control.

A spreader was used in all sprays other than those containing white oil or potash soft soap.

A lead arsenate calyx spray was applied to all trees other than the controls, the five cover sprays following as indicated in Table I.

TABLE I.

Spray.	Date.	Inter-val. Days.
Calyx spray . . .	21/10/36	14
First cover spray . .	4/11/36	15
Second cover spray .	19/11/36	22
Third cover spray . .	10/12/36	25
Fourth cover spray .	4/1/37	35
Fifth cover spray . .	8/2/37	25
Fruit harvested . . .	5/3/37	—

The experimental trees were kept under more or less continuous observation, windfall fruit being collected each week and examined for Codlin Moth damage. Thus at the completion of harvesting, every fruit borne by the trees had been inspected and records kept which indicated both the source of loss and, in the case of Codlin Moth injury, the point of larval entry.

Discussion of Experimental Results.

In interpreting the tabulated results, only major differences can be tentatively regarded as significant. Nevertheless, a number of the non-arsenicals gave control as good, if not better than lead arsenate. Three of these non-arsenicals—bentonite sulphur nicotine sulphate, colloidal sulphur-nicotine sulphate, and nicotine sulphate-white oil—all possess nicotine sulphate in common. Lime sulphur-nicotine sulphate would be ex-

pected to give results comparable with colloidal sulphur-nicotine sulphate, but a single tree, No. 19, in the former series suffered severe damage, and the weighted mean percentage of sound fruit for this treatment is consequently low. The habit of growth in this tree was such that effective spraying was almost impracticable, and it is probable that a repetition of the work would give better results with lime sulphur-nicotine sulphate.

The value of nicotine sulphate in the control of Codlin Moth is further indicated by an examination of the results of the plots treated with lime-sulphur and lime-sulphur-nicotine sulphate. The other constituents in joint sprays containing nicotine sulphate may either supplement the latter by their own insecticidal properties or increase the period over which the nicotine sulphate is effective. Tests with the single and joint sprays in the one experimental scheme are necessary to determine this point.

In any spray schedule for the control of Codlin Moth, three considerations are important, viz:—

1. Residues on the fruit of any kind, toxic or otherwise, are undesirable. Lead arsenate used according to the commoner spray schedules suffers from this disability and its continued use is largely attributable to its relatively low cost and reasonable efficiency. Washing with various solutions, chiefly a dilute hydrochloric acid bath, is frequently necessary. Of the several sprays used in this experiment, only one, bentonite sulphur-nicotine sulphate, left excessive deposits. Even after careful washing the bleached appearance of the surface from which residues had been removed contrasted unpleasantly with the natural color of the fruit. It is improbable, therefore, that bentonite sulphur-nicotine sulphate, as at present available, can be used to advantage for Codlin Moth control.

2. Joint sprays are sometimes preferable to single purpose sprays. Codlin Moth is only one source of loss, for both Powdery Mildew and Red Mite are apt to be troublesome. Sulphur in some form or other is useful for the control of these, and in an already heavy spray schedule the incorporation of sulphur with an effective insecticide for the control of Codlin Moth is frequently desirable. All the sprays used containing sulphur gave control of both Powdery Mildew and Red Mite, while nicotine sulphate-white oil and potash soft soap both adequately controlled Red Mite.

3. Costs must not be excessive. The cost of insecticides in the spray

programme necessitated by Codlin Moth infestation is already considerable, even with a lead arsenate schedule. From a purely Codlin Moth control viewpoint, taking into account both efficiency and cost, potash soft soap is the only spray material which compares at all favorably with lead arsenate. Rather than use a combined spray for this purpose at a much higher cost, it would obviously be preferable to treat the potash soft soap as a single purpose spray, adding sulphur or some such ingredient when the exigencies of the disease situation require it. Costs would thus be kept within reasonable dimensions.

Summary.

1. The experiment was designed to compare various non-arsenical sprays with the lead arsenate schedule for the control of Codlin Moth, all trees receiving an initial lead arsenate calyx spray.

2. The majority of the injured fruits were penetrated by the larvae at the side and not at the calyx end of the fruit.

3. Superficial injury to the rind of the fruit is attributed to the spreader, and the possible association of leaf scorch with the use of lead arsenate for the control of Codlin Moth is discussed.

4. Five non-arsenical sprays, bentonite sulphur-nicotine sulphate, colloidal sulphur-nicotine sulphate, nicotine sulphate-white oil, potash soft soap and colloidal sulphur-potash soft soap, gave very promising results. Potash soft soap alone compares favourably with lead arsenate so far as price is concerned, and, as colloidal sulphur can conveniently be added when necessary for the control of Powdery Mildew and Red Mite, more exhaustive studies of this insecticide will be carried out in the coming season.

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1938 Crop Prospects for Various States

Most Apples Heavy Crops

WITH the appreciated co-operation of the various State Departments of Agriculture and Fruitgrowers' Associations, we are able to give a good working forecast for 1938.

Victoria.

Taking the average for all districts, the following report is supplied by the Department of Agriculture. In their table they show all districts and all varieties, of which the following is the average over all percentage yields estimated:—

Apples.—Jonathan, 85 per cent.; Cleo, 60, Granny 77, Dunns 75, Yates 86, Delicious 79, Rome 77, others 65.

Pears.—Josephine 82, W. Nelis 80, Packham 80, B. Bosc. 85, W. Cole 70, W.B.C. 82.

Apricots, 80.

Peaches, 85.

Plums, 80.

Cherries, 95.

Bendigo, Quantong and Geelong quote Jonathans at 100 per cent. Bendigo quote Packham and B. Bosc. Pears at 100 per cent. Metropolitan, Geelong and Bendigo give Peaches 100 per cent., whilst the latter also reports Plums at 100 per cent. Cherries are 100 per cent. in all centres except Bendigo, with 80 per cent.

Grapes.

The Spring rainfall in the viticultural areas was liberal and the prospects for a satisfactory setting of Grapes are excellent. Two slight frosts were experienced at Mildura, but in the recognised frost areas protection methods were applied with gratifying results, and no material damage occurred.

The vines have made vigorous growth of a dense sappy nature. This class of growth is very susceptible to disease. A small amount of Black Spot is already noticeable, and protective sprays are being generally applied.

For several years growers in the dried fruit areas have been concerned with the increased loss of Grapes due to the activity of the Light Brown Apple Moth, despite the general use of arsenate of lead after flowering. The Department of Agriculture has selected blocks at Mildura and Swan Hill this year where the habits of the pest and the effectiveness of various control methods will be studied.

Crop prospects for coming season at Quantong are:—Apricots, medium; Pears, W.B.C. heavy, X.P. lines medium; Plums, medium; Tomatoes, heavy; Peaches, heavy; Apples, medium to heavy. Season over all indicates that the output will be greater by several thousand packages than last year.

Tomatoes, etc., acreage has developed to the extent that the Water Supply Commission is finding it difficult to keep up water supplies.

Growers are planting canning Peaches fairly heavily, as this is a line we have not had sufficient supplies of to supply factory up to date—our "direct to shop" trade has been absorbing all supplies.

Output of the settlement has developed from 37,000 cases in 1921-22 to well over 100,000 cases in 1936-37.

The Quantong Fruit Growers' Association is now dealing with 91 growers in Quantong and other districts. As a result of the growth of the settlement, the staff has been increased by one, the office has been extended, and electric light and a reasonable telephone system have been installed.

Western Australia.

As we went to press we received a telegram from Mr. G. W. Wickens, Superintendent of Horticulture, stating that the crop prospects for mid-season Apples showed lighter than last year, but estimates of quantities were not yet available.

Tasmania.

The latest report received just before we went to press stated that foliage was well developed and healthy. Democrat and Jonathan were the only varieties that could be called patchy. In Pears, the report was not so satisfactory, and Winter Cole was predicted to be particularly light.

In the Woodbridge district a fair average crop is expected. C.O.P. heavy, Jonathan patchy, Cleos heavy, Democrat light in most places, Grannies good. Black Spot not showing except in odd districts. Reworking has been carried on fairly extensively.

South Australia.

The official forecast of the Department of Agriculture will not be released till about the middle of December, but a report from a Gumeracha subscriber states that in that area:—

Prospects at the moment point to a heavy crop of Apples in all varieties; the only exception to this being in the areas which suffered so severely in the disastrous frost of October 26, 1933, where crops are only light to medium.

Some damage is reported in a few orchards from a frost on the night of the 17th inst., and although it is early to assess the actual loss sustained, it is unlikely to be of sufficient volume to affect the amount available for export, which at present seems likely

Reports on all Fruits

to be at least three times as great as the U.K. quota of space allocated to this State. It is hoped that existing quota may be very considerably increased at the December meeting of the Executive of the A.A. & P. Council.

Pears and Plums vary considerably from very light to heavy, according to variety and situation, this district, however, does not produce a very great quantity of these fruits, and in the case of Plums the demand has greatly diminished during the past few years, in consequence a considerable quantity is allowed to drop on the ground and rot.

Some few growers have during the past planting season increased their orchard areas by further planting of Apples.

Preparation of land for the planting of Potato crops at the end of the year is well in hand, and notwithstanding the low prices which have prevailed during the past season, it seems likely that extensive areas will again be put under this crop during the ensuing season.

Heavy crops of meadow hay have been cut and are now in process of being carted and stacked as reserves of winter fodder for stock.

New South Wales.

The November report from the Department of Agriculture contains the following information, somewhat abridged, of the position in New South Wales.

Pome Fruit (Inland).

The setting of Apples in the Penrose district appears to be good on Granny Smith, Rome Beauty and Gravenstein, very good on Yates and moderate to good on Jonathan and Delicious. The prospects for London Pippin are poor and Democrat poor to medium. The crop is very patchy around Young, Cleopatra carrying the heaviest showing, with Jonathan next best. Rome Beauty and Delicious shed heavily, and the fruit of Granny Smith is deformed. In several orchards, normal crops are to be seen, but generally, production will be much below that of last season.

Medium to good settings are reported from the Orange district. While they range to heavy around Bathurst, the fruit is likely to shed freely during November. At Batlow, the prospects of Granny Smith, Jonathan and Rome Beauty are viewed very satisfactorily. Delicious are also well cropped, while Dougherty and Yates are expected to yield moderately well.

Although very profuse blossoming occurred at Griffith on the Murrumbidgee Irrigation Area, the setting generally was very light. In a few instances good to heavy crops are in sight. Pears are moderate to light in the district mentioned, but in orchards at Penrose and Orange, good to heavy crops are apparent. Williams and Packham's are very good at Batlow, while Winter Cole, although patchy, should be satisfactory. Josephines are moderate and there is a fair showing of Beurre Bosc. A moderately good crop of Williams is in sight at Young, Packham's are fair but other varieties are patchy. In the Bathurst district, settings are medium to heavy, but during the next month shedding is likely to reduce prospective yields.

Stone Fruit (Inland).

The Cherry crops around Young are very heavy, and it is said that record production is likely this season. Generally the quality is good, but early varieties were split by two days misty rain. Mid and late kinds, however, benefited considerably. Prospects are also favorable in the Orange district. At Batlow, moderate crops of St. Margaret and Florence are showing and other varieties are fair.

Generally heavy yields of Apricots are expected at Griffith (Murrumbidgee Irrigation Area) where the fruit is now coloring. Prospects are also good at Leeton, although in a few places a very heavy shedding has taken place. Good crops are apparent at Orange, while in orchards in the vicinity of Young heavy production is anticipated. Plums, Peaches and Nectarines also promise very well in the Bathurst, Orange and Young districts. Moderate to good crops of Prunes are likely at Young, but only very light returns are in prospect at Griffith.

Pome Fruit (Coastal).

Only light yields of Allsopps and Carringtons are in prospect in the Baulkham Hills district, but generally satisfactory settings of Granny Smith, Lord Nelson, Jonathan and Willie Sharp are showing. Good yields are indicated around Kurrajong and Windsor and moderate production is expected from orchards on the Hawkesbury River. In the Camden-Parramatta area only light crops of early varieties are likely, but Granny Smith, Jonathan and Gravenstein are good. McIntosh Red and Twenty Ounce are moderate. A satisfactory setting of Carringtons is reported from the Maitland district.

With the exception of good crops in the Windsor area, prospects for Pears generally are variable for the limited acreage of trees grown.

Stone Fruit (Coastal).

Marketing of early Apricots and Plums is proceeding. The bulk of the crop of Wilson's in the Baulkham Hills district, which should ripen about mid November, is likely to be disposed of in Brisbane. Harvesting of early Peaches is expected to commence in about two weeks.

Citrus.

Marketing of Valencia's proceeded at a rapid rate in many localities, and some groves were cleared of fruit.

Second crop Navels are still plentiful, but owing to the generally unsatisfactory quality, difficulty is being experienced in disposing of them. The position with regard to intermediate crop Mardarins is much better, and fruit of good size and quality is finding a ready market. In some centres, however, the bulk of the crop inclines to small sizes, while the lack of color is affecting the clearance of some large fruit. Fair quantities of Lemons remain to be marketed, noticeably at Kurrajong, Windsor and in the Parramatta-Camden districts.

Reports indicate that generally profuse blossoming occurred and practically all citrus trees are doing particularly well at present. It is expected that the setting of fruit will be good to heavy, but it is too early

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to give any definite estimate of the crop.

Bananas.

Hot, dry weather, with a few scattered thunderstorms, prevailed until the last few days of the month, when some beneficial rain was received. Growth of fruit was retarded in many instances; Bananas were failing to fill satisfactorily, and were ripening prematurely, but the good falls of late October are likely to result in much improvement of quality.

Moderate to fairly large quantities are expected to be marketed during November, but, in a few cases, only light consignments are likely to be made. Fruit generally is of fair quality, although many bunches are only poor as a result of the hard winter experienced. Leaf fall is noticeable in older plantations in the Lismore district, more particularly at Fernside and Rock Valley, and this is adversely affecting quality. At Woodburn, indications point to a general shortage of fruit during November, December and January, when compared with the same period last year.

Pineapples.

Supplies available during November are likely to be light at Tweed Heads, Lismore, Grafton and Woodburn, but heavy marketings from Murwillumbah are indicated.

In the Tweed Heads district, a number of new areas are being planted with suckers from Queensland. Dry conditions tended to retard growth at Grafton and new plantations are showing signs of distress.

Passion Fruit.

Crops in sight at Tweed Heads, Murwillumbah and Mullumbimby range from fair to very good, and those at the first-mentioned centre are expected to be the best for some years. It is anticipated that only small supplies of fruit will be harvested at Lismore and Macksville. In the Grafton district it is said that the whole season has been unfavorable; young vines have set a reasonable crop, but older ones have not fared so well.

Vines are progressing very favorably in the County of Cumberland, and good crops should be harvested in the Summer months.

Queensland.

An exceptionally good season is promised for Queensland fruits this year. In comparison with the past two years good rains have fallen in the Spring and early Summer, and though somewhat late in several districts, generally have brightened the outlook for orchardists.

Deciduous.

In the Stanthorpe District it is estimated the crop of deciduous fruit will be 30 per cent. greater than last season. There is a very good crop of Apples.

Stone Fruits.

Though late frosts thinned out stone fruits (Apricots, Peaches and Plums), this should prove an advantage from the point of view of increased size of the fruit remaining.

Grapes.

There is every indication of a record crop of Grapes and the possibilities of greater export to the East is being closely enquired into. The season for these fruits as a whole is quite normal, being neither early nor late, and large quantities of Plums will be forwarded to market by the first week in December.

Citrus.

In the citrus districts a comparatively good crop has set following good rains, despite heavy sheddings in the early part of the season. Considerable planting up is taking place, both in the Gayndah district and on the Blackall Range. As a matter of fact, at the conclusion of last plant-

ing season nurserymen were compelled to refuse orders for citrus trees as their stocks were sold out.

Bananas.

In the Banana growing districts the recent rains have been welcomed as the best for more than two years, and apart from the benefit to established plantations, has speeded up the planting of new areas. It is estimated that 4,000 acres of new Banana land will be planted this season.

Pineapples.

Intense activity is being shown in Pineapple districts, where many new areas have been, and are still being planted, the rains having given impetus to this section of the industry also. Last year a record crop was handled by the canneries during the Winter. The total production for the year (fresh fruit, market and canneries) was 844,418 one-and-a-half bushel cases, compared with 830,186 cases in 1935.

An experimental shipment (500 cubic feet) of Pineapples to the United Kingdom is to be made at the end of November using the Elgin Gas process. The results of the experiment are awaited with much interest. If it is shown that fresh Pines can be shipped satisfactorily and economically by this process a big market should be opened up in the United Kingdom for this fruit.

Other Fruits.

Papaw, Passionfruit and Strawberry growers are finding ever expanding markets for their products at good prices, both as fresh fruit and for canneries, and the natural consequence is that greater areas of these fruits are being planted annually.

In South Australia an excellent crop of Apples is showing, in fact, it was recently estimated that South Australia would have within the vicinity of three-quarters of a million bushels of Apples available for export.

South Australia has earned a good name for her export packs. Commendable efforts are being made to develop trade with the Continent.

New Zealand

Crop Prospects :: Overseas Trade :: Government Guarantee

(By Our Correspondent.)

Crops.

It is now fairly safe to estimate the crop prospects for New Zealand for the forthcoming season. Between September and November the fruitgrower is up against the usual seasonal conditions, and this season has been no exception, but most districts have been fortunate enough to get through without any major disaster—the probable exception being Canterbury and Otago, where frosts in the former district have taken toll of the stone fruits and in the latter a 60 per cent. loss is reported in Apples. In the Hawke's Bay district a comparatively heavy frost of 8 degrees endangered the early Plums and Peaches and everything from commercial fire pots to treacle tins were called into commission with more or less satisfactory results. Coal was also used, but the results were not comparable with the oil pots. Evidently the heat from the coal fire dies down as the morning advances, whereas the reverse is the case with the oil.

This frost visitation to a district like Hawke's Bay seems to indicate that New Zealand is going through a cycle of weather. At one time a frost in Hawke's Bay was most unusual, but for the last two seasons quite severe frosts have been experienced. The lesson of the last two seasons to those growers in the districts that were even slightly affected by frost is that the installation of frost fighting equipment to the fruit-grower running a commercial business is just as important as an up-to-date spraying plant. As a matter of fact, if there is no fruit on the trees the spray outfit is not much use.

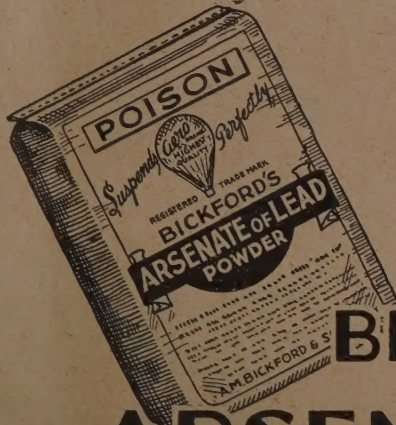
The New Zealand Government, realising the necessity of up-to-date information on frost fighting, sent one of their Horticultural Inspectors to America during the Winter. On his return lectures were given in the various centres subject to frost, and although as far as we can learn there are no new methods in universal use in America, it is quite a sound move on the Government's part to keep growers in this country acquainted with what is being done elsewhere.

General reports on both stone and deciduous fruits are for exceptionally good crops. The Hawke's Bay district in particular will probably carry the best crop for many years. This is an aftermath of the almost total loss in 1936. The rest to the trees has given them increased vigor, and we understand the setting has been marvellous. Nelson also is carrying a full crop, so it appears that if an Agreement is made with Australia for a quota there is a small problem heading along as to how the quantities will be made up. This is no easy matter without creating in a certain amount of hardship. No doubt, a lot of thought has been put into the matter, and while it is advisable in the general interests of the New Zealand industry that the best sizes and the best varieties receive preference for the export trade, such a policy may be a little unfair to the grower of the less favored varieties. It can be expected that the New Zealand markets will be at a fairly low ebb unless drastic steps are taken to increase consumption. During the Winter it was generally anticipated in quite well informed circles that the market for fruit ex cool store would be bright, but evidently through everybody thinking the same way and through a majority holding for the price improvement, the market during October and November has been quite sticky, and it has been obvious for quite a few weeks that the expected prices will not be realised. With the arrival in the markets of Cherries, Strawberries, Gooseberries, Apples have to a certain extent been neglected, and with quite fair supplies of Oranges from New South Wales and Victoria the public are probably inclined to give Apples a rest.

We understand that a Committee, representative of the industry and the Government Departments interested, has been making a very close investigation into orchard and export costs, the aim is probably to arrive at a figure to form the basis of a guarantee for the forthcoming season.

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Orchardists, who for many years have sprayed with "Aero brand" Arsenate of Lead, still say that it is the most effective Arsenate of Lead they have ever used.

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Buzacott & Co. Ltd.,
7-11 Market Street, Sydney.

QUEENSLAND—
Buzacott (Queensland) Ltd.,
443 Adelaide Street, Brisbane.

TASMANIA (Northern Districts)—
Gardner & McKenzie Pty. Ltd.,
84 Cameron Street, Launceston.

TASMANIA (Southern Districts)—
Port Huon Fruitgrowers' Co-op.
Association Ltd.,
Davey Street, Hobart.

It is no easy job to arrive at costs in an industry such as fruitgrowing. The variation in production and costs in the different districts make a general overall figure rather difficult to arrive at. It is quite obvious that costs are increasing—legislation is to a certain extent responsible, but general improvement in raw material prices throughout the world is also having an effect. Further increases are expected in connection with costs, and we understand sawmill employees have applied for a new award. Orchard workers are claiming an increase—we understand senior employees are asking for £4/5/- per week with overtime at double rates. The nett result is an increased expenditure by the orchardist on up-to-date machinery, both for the orchard and the packing shed. On present market returns the fruitgrower will find it hard even to pay ordinary wages without double time, so overtime during the packing season is likely to disappear. Therefore the only way to handle the crop economically is by up-to-date machinery.

Overseas Trade.

The recent Trade Treaty with Germany may have some effect in connection with Continental shipments. Germany is to take a certain percentage of the available trade in Apples and Pears—the compulsory maximum being £60,000, New Zealand Currency. They can, of course, take more but as their main demand seems to be for wool, tallow, etc., the minimum will probably become the maximum. Allowing that the fruit is worth 10/- c.i.f., that means 120,000 boxes per annum. This does not compare very favorably with the figures of five or six years ago, however, it is something and may help considerably in increasing New Zealand's export trade outside English quota. Under

this quota arrangement there is a definite inducement given to both Australia and New Zealand to extend their markets in other parts of the world.

Government Guarantee.

No announcement has yet been made, and presumably it will be delayed until such time as the Government have the opportunity of considering the report of the Cost Committee that has been set up.

A "NEW" ROTARY CULTIVATOR.

Although there are a considerable number of Orchardists, Market Gardeners, and others who have been using Rototillers for the past ten years, this capable machine has been unobtainable within the Commonwealth during recent years. However, now that a Sydney Firm has taken over the Australasian Agency, these "new" Rotary Cultivators are again obtainable.

The "Simar" Rototiller is perfectly finished in every detail, and the rotary principle is something entirely new. Sturdy springs and tynes make the Rototiller capable of work no other machine can approach. The springs are clamped solidly to a shaft in staggered positions. Revolving through the ground, they take small "bites" at each revolution, completely pulverising and mixing the soil; and because of unique design of these tynes there is no possibility of the "Simar" Rototiller forming a "hard pan" in any type of soil.

The engine is perfectly engineered and, indeed, a credit to the manufacturers. Simplicity in design and sturdiness in construction have resulted in an engine that is fool-proof to op-

Victorian Fruit Marketing Association

THE MONTHLY MEETING of the Executive of the Victorian Fruit Marketing Association was held at the C.T.A., Melbourne, on November 26.

There were present Messrs. G. W. Brown (President), W. H. Carne and A. S. Harrison (Vice-Presidents), J. B. Mills, Geo. Douglas, H. M. McLean, K. V. Eagle, K. Weeding, F. R. Mellor, J. J. Tully, F. Moore, H. J. Noonan, E. Russell, R. A. W. Bailey, W. P. Hutchinson, C. H. Sprague, F. Cave, J. W. Barker, J. M. Ward, and the Secretary, R. E. Boardman.

Much concern was expressed at the possibility of the lessening of British preference duties for fruit under the Ottawa Agreement, and it was decided to empower the President of the Apple and Pear Council (Mr. Mills) to confer with others and to take any requisite action to protect the industry.

Messrs. Brown, Moore, Bailey and Mills reported re Apple and Pear Council meeting in Sydney, and approval was given for the Council to continue its efforts to improve local marketing, together with the alteration of the Council's constitution, by deleting the word "export" from the

erate, and free from annoying and costly mechanical trouble.

Motor Tractors Pty. Ltd. are the sole Australasian agents for the "Simar" Rototiller and will be only too pleased to answer any queries regarding the new cultivators. Their showrooms are at the corner of Young and Bridge streets, Sydney.

title. It was decided to recommend to the Victorian Exporters' Handling Committee the utilising of the services of one firm in England to attend to surveys of ships' cargoes re claims, etc. Appreciation was expressed for the Apple publicity campaign, with recommendations for its continuance, finance to be arranged by means of a uniform per case excise levy on all Apples and Pears sold in Australia. Mr. J. B. Mills directed attention to the necessity of educational publicity for Apple varieties in accordance with the seasons when the fruit was at its best.

It was decided to approach the Minister of Agriculture again requesting the appointment of a delegate from the Cool Stores Association on the cool storage rates and conditions committee, also to press for additional fruit packing instructors on the permanent staff of the department.

The Victorian Housewives' Association wrote, strongly supporting the Association's policy in endeavouring to have made compulsory the sale of large fruit by count instead of by weight. It was decided to place again this matter vigorously before the Minister of Agriculture.

Messrs. F. Moore and K. Weeding were appointed to consult the Fire Underwriters' Association of Victoria with regard to insurance of fruit in cool store and in transit.

It was decided to support the Chamber of Agriculture in its endeavours to have the date of school holidays coinciding with the Royal Agricultural Show.

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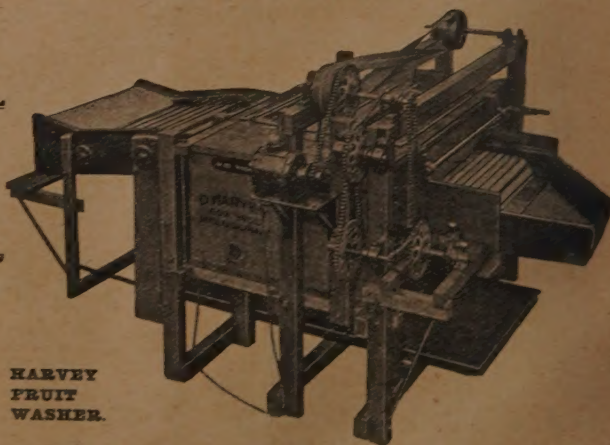
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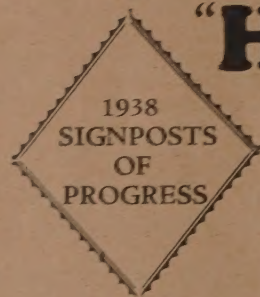


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Victoria's Vineyards and Citrus Groves

MILDURA — MERBEIN — BIRDWOODTON, ETC.

(By Our Travelling Representative.) (To be continued next issue.)

A REPRESENTATIVE of "The Fruit World and Market Grower" is at present "re-discovering" the Murray Valley, and finding a great development since his last visit to the great fruit centre of the north. "Water into gold" well describes the change that irrigation has brought to these fruit producing areas. In the following and subsequent reports, readers will learn much of the methods followed in the prolific districts visited, and will gain a greater knowledge of this part of the State.

MILDURA.

THE Queen Town of north-west Victoria, initiated 50 years ago by the Chaffey Bros., is now looked upon as the capital of the remote north-west of Victoria, previously Wentworth, 20 miles further west, on the N.S.W. side of the Murray, held pride of place in this area.

Mildura is 351 miles by rail from Melbourne—300 miles from Portland, its nearest Victorian coast, and about 265 miles from Adelaide, so can be truly termed an inland town.

When Mildura is spoken of to the man in the city, he immediately visualises a modern town of 8,000 inhabitants, situated on Australia's greatest navigable stream, the River Murray, the waters of which have been impounded by locks and weirs for domestic and irrigation purposes.

Many folk spend their Winter vacation in this locality, away from the cold and wet of more southerly climes. Mildura provides every kind of accommodation and recreation for its guests, including steamer trips up and down stream, under its drawbridges and through its locks.

The town is laid out on the rectangular principle; the streets north and south are named avenues and the cross ones numbered streets. Thus, the street parallel and next to the Railway Station, which is on the river bank, is No. 7 street, and so on for about a dozen cross streets south.

The main boulevard is Deakin-avenue, a memorial to the late Hon. Alf. Deakin, a wondrous broad tree, garden and lawn planted highway, extending away south into the country from the Railway Station, cutting the town in two. Here are to be found the public offices, Carnegie Library, with clock tower, band rotunda, club buildings and grounds, banks, churches, the W. B. Chaffey monument and soldiers' memorial, many handsome residences and gardens, and last but not least, the Majestic Hospital.

The cause and development of this magnificent borough town was the foresight and pioneering instinct of

the Chaffey Bros., backed up by their technical knowledge and unbounded enthusiasm; this enthusiasm they always succeeded in passing on to others, until now, with a shire population of 25,000 souls, mostly dried fruit producers, who are known the world over by their "Sunraysia" products.

These results have been achieved by hard work, determination and applied intelligence, and many hard and long battles fought and won.

The pulse of the whole system is the River Murray, which takes its rise in the Eastern highlands of Victoria and N.S.W., being the boundary line between these two States, flowing on westerly into South Australia, past Renmark as far as Morgan, and then south into Lake Alexandrina, at Wellington, and thence to Encounter Bay.

The Murray is fed by the Goulburn (a Victorian River) at Echuca, and near Balranald by the Murrumbidgee and Lachlan, and at Wentworth by the Darling, in fact, all the Riverina streams feed the Murray. These eastern highlands nearly always have an abundant rainfall, but in the year 1914 (the drought year) even these sources were nearly sapped dry, consequently the citrus growers of Irymple placed sandbags across the very small Murray stream to get sufficient water to keep the trees alive. Again in 1924 (before completion of weir), Mr. Treacy, a steamer owner and navigator of the river, took a traction engine and load across the river bed, through only a few inches of water. This river is now 25 feet deep and three times the width of the Yarra at Princes Bridge, Melbourne, and being of such little fall (about 6in. to the mile) is backed up for 45 miles or so.

To give an idea of the nearly level course of the Murray River from Mildura to the sea, the stream at Summer level is about 100 feet above sea, with 800 miles to go to its final discharge. Thus our readers will note that the number of weirs along its course will hold the water right back in a succession of reservoirs, which are being used for irrigation purposes through numerous pumping stations.

Along the river banks are many small pumping plants, of private owners, who pay a rate according to the size of the pipe. Of course, the very small hand concern is not considered.

Mildura and districts have many huge pumping plants and co-operative packing and processing houses, which will be dealt with separately in future issues. Suffice it is to say that Sunraysia reports that for 1937, about 45,000 tons of dried fruits were

handled and 500,000 bushels of citrus fruits packed in their depots.

It will be of interest to note that about 90 per cent. of the dried fruit industry of Victoria is centred at Mildura and its neighbours, also that production has nearly doubled during the past 13 years.

In the newer settlements of Coomealla, Pomona and Curlwaa, on the N.S.W. side, considerable plantings have taken place, consequently we must look for larger production in the near future. Markets must be extended and old markets retained and stabilised, which can only be done by co-operation through such a medium as the A.D.F.A.

MERBEIN.

That portion of Merbein known as "The Ridge" is quite different in appearance and constitution from any other portion of the Murray Valley irrigation areas. Hereabouts, the Murray River is away to the north of Merbein township, about a mile distant.

Third-street passes along between the town and a number of orchards on "The Ridge," all of which are 100 ft. or more above the bare river flats.

These blocks are all undulating and are beautiful spots. From "The Ridge" a fine panoramic view is obtained for miles around. The visitor is surprised at the unique scenic views as he is expecting to see nearly level irrigation blocks, similar to the rest of the district.

Versatile Production.

From the upstairs of Mr. S. E. Donaldson's chateau, a high spot on "The Ridge," a particularly splendid view is obtained of these orchards, river flats, distillery, pumping plant, etc. The main channel follows "The Ridge" along, which varieties of useful and ornamental trees and shrubs are flourishing. Here are to be seen Olives, Figs, Walnuts, Cedars, Tamarisks and Jacarandas (now in bloom), and within the citrus and vines.

Mr. Donaldson was successful at the recent Royal Melbourne Show, with exhibits of Valencias and Lemons. Very large bunches of Sultanas and Currants, 8 lb. in weight, are common on this property, due to the scientific cultural methods employed. Irrigation on these hillsides requires a good deal of attention, and a series of concrete drains, making detours for levels, with small take offs at intervals, provides for this.

Prosperity abounds on these red sandy rises along "The Ridge," where similar systems of manuring, trellising, cincturing, pruning, cultivation and irrigation obtain, with ornamental trees and flower gardens surrounding the homestead in profusion.

To reach Merbein, 10 miles away, by road from Mildura, the buses give regular and splendid service.

The water crossing 17th street (Murray Valley Highway) and Walnut-avenue is conveyed for a quarter of a mile by means of an overhead iron flume, through a depression, to save seepage. Further west is Lake



A bountiful harvest.

Hawthorn, which receives the drainage waters and into which the River Murray flows at flood times.

BIRDWOODTON.

Although Merbein is 10 miles from Mildura by the popular route, it could be reached by air in less than 4 miles.

Along the Murray Highway, a portion of which is known as "Mena" road, is Birdwoodton. This is one of the best parts of the district, being mostly in the possession of ex-A.I.F. men.

On the occasion of the writer's visit, Mr. P. S. Bailey, assisted by his staff, was topping and tying up vines showing 10 ft. of growth, due to nitrogenous cover crops turned under, with heavy manuring and intense culture. Very large bunch frames, some a foot long, were carrying a good setting of all varieties of Grapes.

These lands are mostly red sandy loams, on slight slopes, admirably suited to irrigation. On the other side of road, Mr. J. P. Cupper has several properties, occupying, with his family, one of these. Mrs. Cupper is evidently a flower lover, as a beautiful display is in evidence about the homestead. Mr. Cupper has been known for many years in this district as a successful grower, and in years gone by, before so much of his time was taken up with the golden Raisins, he indulged in his favorite hobby, of poultry keeping. Some good specimens of O.E. Game and W. Leghorns are still roaming about.

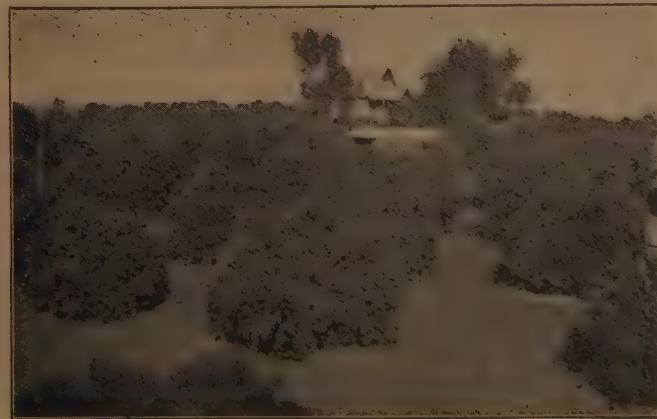
Further along and near to the turn off west to S. Australia, we come to Mr. F. Langdon's. The vines are showing prolific growth. The proprietor has recently installed a new pipe drainage system.

Mr. Langdon is very optimistic about this scheme, stating that results so far have been amazing.

Discussing the best distance apart for planting vines, this gentleman claims that further apart would give heavier crops per vine, but that 10 ft. in the rows and 11 ft. between the rows is considered by the practical men to be the most economical.



Picking Sultanas at Mr. S. Donaldson's vineyard, Merbein, Vic.



A portion of the well cultivated Citrus grove of Mr. S. Donaldson, Merbein, Vic.

Fruit Trees & Fruit Tree Stocks

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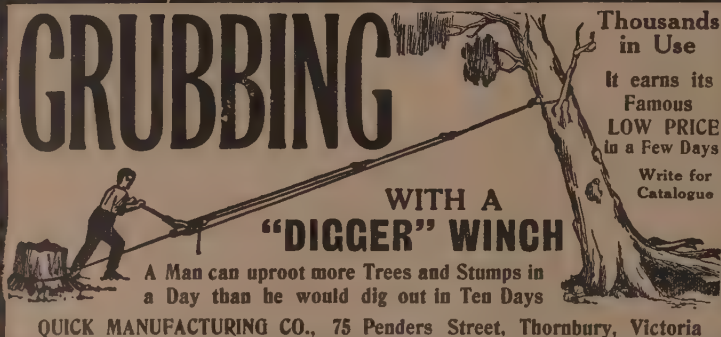
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Pakenham Celebrates

Apple Packing Successes

MUCH enthusiasm was shown at the function at Pakenham Upper, Victoria, on November 5, when prizes were presented for Apple packing competitions.

Mr. Wallace Black presided. There was a large attendance, including Mr. M. Bennett, M.L.A., Mr. J. M. Ward, Mr. E. E. Pescott, Mr. F. M. Read, Mr. B. Krone, Mr. W. Harris (Department of Agriculture), Mr. S. Harrison (Victorian Exporters' Handling Committee), R. E. Boardman (Australian Apple and Pear Council).

An apology was received from Mr. R. Downie (Gerrard Wire Tying Machines Co. Pty. Ltd.).

Mr. Ward, presenting the perpetual shield donated by the Victorian Exporters' Handling Committee, stated that this shield, having been won five times by the Pakenham Upper School, would probably be held permanently by this school, there only being one year of competition yet to go.

Mr. Bennett, M.L.A., expressed appreciation to the School Master, Mr. Jobling, for his devoted services; he was also doing his utmost to have Mr. Harris, Fruit Packing Instructor, placed on the permanent staff of the Department.

The children whose Apple packing secured the prizes were Betty and Thelma Black, Jean Stuchbery, Alma Leslie, Austin Bastow, Ronald Boyd, Jim Martin. Each of these children was presented with the sum of 5/.

Members of the Young Farmers' Club, whose Apple packing won prizes were Marjorie Black, Thelma Black, Lindsay Stuchbery, Jean Mapleson, Alma Leslie, Margaret Black, Marjorie Mapleson, Joyce Holdenson.

A handsome cup, purchased with the prize money at the Brisbane Show, was handed to the School Master, Mr. Jobling, for safe keeping amongst the school trophies. The



Shields and Trophies won by the Pakenham Upper (Vic.) State School and Young Farmers' Club. The large shield in centre is the one donated by the Fruit Exporters' Handling Committee for competition by school children in the Apple Packing Competition at the Melbourne Royal Show and won by Pakenham Upper on five occasions.

Mr. Ward congratulated the school children on their success at the Melbourne Royal and Brisbane Show. The Apple packing throughout the whole State had improved because of the competitions over the years. The industry was indebted to the Victorian Exporters' Handling Committee for their enterprise in making the shield available.

Despite the great success which followed these Departmental activities in instructing school children in fruit packing, much yet remained to bring the Australian pack up to the standards of our overseas competitors. He would like to see shed packs in long lines under one brand, there being too much variation under the present methods of home orchard packing.

Mr. Ward also thanked the Gerrard Wire Tying Co. Pty. Ltd. for their shield.

shield presented by Gerrard Wire Tying Co. Pty. Ltd. was handed to Mr. F. Jackson, on behalf of the Army Road Young Farmers' Club. Mr. W. H. Black was presented with a handsome case of cutlery in recognition of his many years of faithful service to the school and the district. A presentation was also made to Mr. W. H. Harris; he was cordially thanked for his appreciated services.

During the evening appreciative references were made to Mr. Wolff for framing the many certificates won by the scholars.

Mr. A. S. Harrison, Victorian Exporters' Handling Committee, congratulated the school on the remarkable achievements of the pupils.

There was a bright evenings entertainment of musical and conjuring items, followed by supper and dancing.

SHEPPARTON'S CENTENARY.

Big Day on January 13.

Shepparton, Victoria, will go "Centenary Conscious" on January 13 next, and already plans are well in hand to fittingly mark the festivities of this thriving northern city.

Arrangements provide for a gala day procession with many floats in which the history of the development of the district will be visualised. A public holiday for the day has been proclaimed, so that the whole district will be enabled to be well represented.

Athletic and swimming sports are being organised. A fireworks display

and dances are included in the plans. Sunday, January 9, will be set aside for thanksgiving services in all Churches in the district. All local organisations and business interests are swinging well into stride and promising support to the Committee.

Peach growers in San Joaquin, Cal., are experimenting with a cotton cloth designed to prevent infection during drying time.

.. ..

President Roosevelt's son, Allen, is experimenting in Celery growing at the Hoover Ranch, near Chowchilla, Calif.

Apples and Pears

Meetings of Growers at Harcourt, Pakenham and Quantong.

AT a well attended meeting of the Young Orchardists' Club, Harcourt, on November 12, Mr. W. Eagle presiding, an address on "Fruit Marketing" was delivered by Mr. J. B. Mills, President, Australian Apple and Pear Export Council.

Mr. Mills traced the activities of the Council from its inception, which he stated had brought about better co-operation between the States and had provided opportunity for organising a united Empire request for the duties which were embodied in the Ottawa Agreement, thus conferring preferential treatment on Empire fruits entering the United Kingdom markets. A higher duty than the 4/6 per cwt. on Apples and Pears was really necessary because of the lower value of the American dollar now than when the agreement was made in 1932. Yet there was a grave danger of the Ottawa preferences on our fruit being lost under the proposed international understanding between Great Britain and the United States of America. It behoved producers to be very alert on this question as the successful export trade in Apples and Pears was vital to Australia.

Continuing, Mr. Mills dealt with many of the practical problems affecting the industry, including the necessity for supplying export markets with high quality fruit of the right varieties and sizes.

A hearty vote of thanks was carried by acclamation on the motion of Mr. Alan McLean, seconded by Mr. W. Bertuch.

Mr. Mills also addressed meetings of growers at Pakenham and Quantong, pointing out the inter-relation of export and local marketing of Apples and the necessity for educational publicity, especially for varieties when they were at their best.

In expressing appreciation for Mr. Mills' remarks, several speakers directed attention to the urgent necessity for the continued preference in Britain on Empire fruits under the Ottawa Agreements.

SYDNEY UNIVERSITY.

Chair of Botany.

Dr. Eric Ashby Appointed.

An announcement was made by the Senate of the University of Sydney during the month, which stated that Dr. Eric Ashby, of the Department of Botany at the University of Bristol, had been appointed to the Chair of Botany in succession to Prof. T. G. B. Osborn.

Dr. Ashby is aged 33 years and was educated at the City of London School and the Imperial College of Science of the University of London, where he had a brilliant career, gaining First-class Honors, B.Sc., in 1926, also winning the Forbes Medal. In 1929 he gained the degree of M.Sc., and won the Commonwealth Fund Fellowship entitling him to two years' study at the University of Chicago and the Carnegie Institute in Arizona, including a visit to Hawaii studying problems affecting the sugar cane industry.

New South Wales News and Notes

Interesting Tour Ended

CORBIE HILL DISTRICT.

READERS have followed with interest the entertaining reports, presented in previous issues, of the visit of our travelling representative to certain fruit growing districts in New South Wales. In this issue he concludes his present report from that State, prior to an extended visit in the Mildura area, and takes us to Corbie Hill.

Corbie Hill.

One of Leeton's fruit districts is mostly in the hands of ex-A.I.F. men, corresponding very much to Leeton as the Red Cliffs people do to Mildura. Men who have made good on these red, sandy rises.

The main canal passes through the fruit-growing areas of Yanco, Meringle Hill, Corbie Hill, Leeton, Wamoon, Stanbridge, Stony Point, Yenda, Beelbanger, Yoogali, Griffith, Hanwood, Wyangan and Ballingal.

This Corbie Hill and Meringle Hill district is mostly above channel levels, consequently the water is pumped to a concrete head and distributed via concrete drains by gravitation. The pumping plant is adjacent to the main canal between Yanco and Leeton. On this account water is more costly than for those below flow level, nevertheless it is far below what the folk on the Murray River have to pay.

Fortunate Areas.

These higher lands are not troubled with seepage and frosts to the same extent as lower places, and is the only M.I.A. district that is higher than the channels, with the exception of a few acres here and there. The district is famous for its citrus, canning, fruits, G.S. Apples, table and drying Grapes and Tomatoes, and with the experiences of Leetonites to guide them, they have avoided most of the pitfalls which surround new settlers.

Practically all are shareholders in the Leeton Fruitgrowers' Co-op. Society, with Mr. Glover (manager) as a fatherly adviser. They also have shares in the Leeton Co-op. Cannery, which has recently been reconstructed, and handles most of their products.

Picking up the Fruit.

Leeton abounds in large packing houses. These concerns run huge motor lorries which pick up the fruit on the orchards, thus it will be seen that the grower has only to produce the goods, concentrating on that department.

Although Meringle and Corbie are not so prone to frost damage, some of the growers make provision to ward off the danger. One of these is Mr. Eric Smith, who, after observation, has chosen the "crude oil" system, because of its simplicity, effectiveness and economy. It not being necessary to raise the temperature more than 2 deg. above the safety zone, and an indicator in the house shows the temperature, 5 ft. above the ground. At time of visit the filled oil containers, about 60 to the acre, were distributed throughout Mr. Smith's Apricot orchard, the setting being heavy. A good leader is always a boon to a district, and these ex-

soldiers and others are quick to follow his example.

Experience has shown that the most suitable soils and positions for fruit culture, the sandy loams with porous clay subsoils, suit citrus and every other variety, but vines and deciduous will thrive in the heavier lands, provided that there is good drainage, manuring and cultivation, which is very much in evidence here.

Quality Good.

There are numerous orchardists producing the best of fresh, canned, and dried fruits, under the most scientific and economical methods in this famous spot.

Mr. F. Jackson, of Farm 1213, Corbie Hill, has recently erected a fine residence on a commanding position overlooking his orchards, vineyards and groves. From here a panoramic view of Corbie Hill is obtained. In addition to orcharding, large quantities of hay are grown on this estate, and sold to his fellow growers.

It would take a long time to tell in detail the doings of individual orchardists or to eulogise them, nor would justice be done to pick out some and leave others untold, for all deserve praise for they know and do their jobs in such a way that the expert or other visitor is greatly pleased and impressed.

Room for All.

There is unlimited scope for more settlers in the M.I.A., who wish to be orchardists, dairymen, lamb raisers, rice or wheat growers. The weirs at Yanco, Beremb and Burrinjuck provide for further opening up of farms; schemes now being in hand by the W.C. & I.C. of N.S.W.

N.S.W. BANANA BOARD.

Commences Selling Operations.

A recent report states that the N.S.W. Banana Marketing Board has now commenced selling operations for the first time in its history. At present it is handling only a small proportion of the fruit. The Board has accepted tenders for the construction of up-to-date ripening chambers at the Sydney City Markets, to be ready for use early in the New Year.

The Banana Growers' Federation is being urged to purchase three plantations in the Tweed, Brunswick and Richmond districts in which to carry out exhaustive fertiliser trials, with the co-operation of the Department of Agriculture.

Granny Smith Apple Memorial

A MOVEMENT has been on foot for some time having for its object the erection of a permanent memorial as near as conveniently possible to the actual position of the original Granny Smith tree. A local committee was formed at Eastwood for the purpose of putting the project into effect and a representative of the committee attended the 1934 annual general conference. That conference was enthusiastically in favor of the proposal and referred the question to the Board.

The Board has since been in consultation with the committee, and it is now proposed that the memorial take the form of a drinking fountain to be erected in a public park known as Moore Park, on the corner of Balaclava and Vimera roads, facing Blaxland-road, Eastwood; Blaxland-road is a main concrete thoroughfare and the park is very well situated.

The local committee has approved of the type of memorial. A fountain constructed of synthetic stone 5 ft. 6 in. high and 7 ft. over all. The Apple design over the bowl is green terra cotta, the inscription plate being bronze. The design provides for one or two bowls in accordance with the amount that may be raised. The position of the bowl is shown in the illustration, but the plan provides also for a seat at the back. Estimated costs have been secured and provide for a margin according to the adoption of the complete plan or modifications thereof.

The present is an appropriate time for proceeding with this matter, as the local municipal council has approved of the site, and proposes expending the sum of £250 on improvements to this park, so that if an early decision can be reached in connection with the fountain there is little doubt that the council would incorporate their proposals for such improvements into the whole scheme.

Contributions may be made payable to the Fruitgrowers' Federation of N.S.W., Watson House, 11 Bligh-street, Sydney.

This proposal is worthy of immediate and generous support, Growers and all interested would do well to support the worthy desires of the Fruitgrowers' Federation in this matter.

Apart from all other considerations, the advertising value of this memorial would be worth its cost many times over.

FRUIT GRADERS WASHING MACHINES, Etc.

We make all sizes and styles of Fruit Sizing Machines from the smallest at a very low price suitable for the stone fruitgrower with only a few acres, to the largest and most complete packing house plants ever produced. Machines with instantly operated independent controls to all roller sections. Highest class workmanship and reasonable prices.

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Asbestos and Cork Insulation Manufacturers.

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• Granulated CORK for insulating Cool Chambers, etc., and for Fruit Packing.

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UNUSUAL POISONING.**Arsenate of Lead Kills Man.**

A recent report from Sydney shows the danger of infection from poisonous sprays on orchards. An employee on an orchard in the Orange district had been spraying with lead arsenate

and foolishly rolled cigarettes without cleaning his hands of the spray material. As a result he died from the effects of poisoning. Orchardists and others using poisons in any form cannot be too careful. Even though fatal results may occur very seldom, infection in cuts or other disabilities may result.

Fruit Industry Enquiry in N.S.W.

INTERESTING EVIDENCE

INTERESTING EVIDENCE is continuously being given by witnesses at the N.S.W. Fruit Industry Enquiry, which is being conducted by Mr. J. E. McCulloch, Stipendary Magistrate.

Mr. B. Flewell-Smith, manager of the Committee of Direction of Fruit Marketing, Brisbane, explained the operations of that organisation. Five sectional group Committees were responsible for the policy in regard to their specific fruits, and the Committee of Direction acted as the executive body. Provision was made for a poll every 5 years if required.

The legislation governing the scheme had been particularly serviceable because specific problems could be tackled without taking charge of the whole marketing arrangements of the particular fruit.

The Fruit Marketing Organisation Act differed from pool legislation in as much as the C.O.D. could control the marketing of any specified fruit, or exercise its functions only over certain aspects of marketing.

Of particular value has been the system of bulk loading. In Brisbane the fruit and vegetables were unloaded on to covered platforms and segregated for the specified agents.

This system compared more than favorably with Darling Harbor, Sydney, where there were no covered platforms at which interstate fruit could be unloaded. There was far too much handling of fruit, as the carriers had to sort the fruit for themselves. The facilities at Darling Harbour were nothing short of disgraceful. Continuing, Mr. Flewell-Smith said his organisation disapproved of agents sending canvassers to Queensland districts.

Unjust Inspection Fees.

Witness strongly objected to the system now operating, by which

growers were contributing inspection fees for which no effective service was rendered. Queensland Pineapple growers, by paying 1d. per case, were contributing £1,000 to the New South Wales State revenue. There was no disease on Pineapples which could be transferred to other fruits. The 1d. per case inspection fee on Bananas and Papaws was deemed to be unjust.

Mr. L. J. Jenkins, President of the New South Wales Chamber of Fruit and Vegetable Industries, said agents rendered numerous and indispensable services. Agents took the whole risk of payment for a substantial amount of fruit, thus maintaining prices. Reconditioning of badly graded fruit was another service. The Chamber was opposed to the practice of using canvassers.

The cold storage facilities in Sydney were inadequate. Pears and Apples should be in separate chambers; at present they were stored together.

Continuing, Mr. Jenkins stated that the decentralisation of the industry, due mainly to the operations of packing houses, wrought much harm. Firmer prices could be obtained through the congregation of important buyers in Sydney. An urgent need was the appointment of fruit packing instructors for fruit growing areas. Three inspectors could serve an ordinary sized district. Too many varieties of Apples were being grown; at present 77 varieties were marketed. This should be reduced from six to twelve for local, interstate and overseas demands. A recent shipment from Tasmania contained 39 varieties, of which only two were wanted.

Mr. F. Bryant, Secretary of the N.S.W. Citrus Growers' Defence Association, said his organisation opposed the effort made by the Fruit Growers' Federation of N.S.W. to have the proposed Fruit Marketing Organisation Act placed on the Statute Book. Under the present system of marketing through agents, growers had complete control over the market. Private enterprise was more satisfactory than a controlled system. Controlled marketing would increase the cost to the disadvantage of growers, as had been proved by the Egg Control. There were too many small orchards which would never be economic.

Representation at Federation Conferences, stated Mr. Bryant, was arranged in a haphazard manner. The Orchard Tax as at present operating was unsatisfactory. There was no over production problem of good quality citrus fruit.

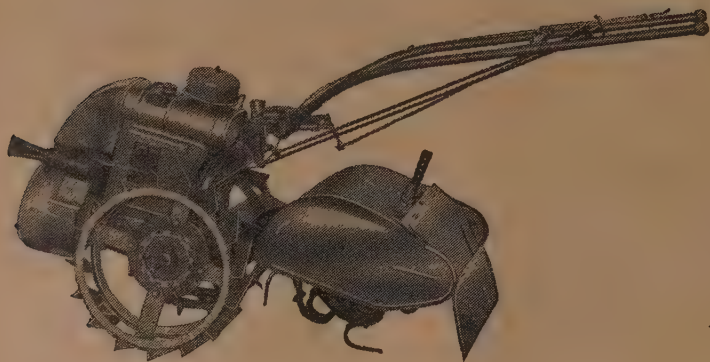
The Commissioner stated he was not deeply interested in the conflict between the Citrus Growers' Defence Association and the Fruit Growers' Federation, as to the best method of organisation, but if he could help the industry in this regard, he would do so.

Mr. Kaiser, President of the Hawkesbury District Citrus Growers' Association, said that Valencia and Navel Orange trees could be expected to have an economic life of about 35 years, provided they were not affected by disease, and were efficiently cultivated. The fungus root disease *Armillaria mellea* was a serious menace.

The principle of an Orchard Tax, Mr. Kaiser stated, was unjust. If there were provisions for a poll every three years, this would be a great improvement. He considered the best organisation would be one in which the various sections of the fruit industry controlled their individual sectional organisations, and appointed representatives to a central co-ordinating body.

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The Rolls-Royce of Rotary Cultivators



AT LAST! Here is the Rotary Cultivator you are looking for—a machine that will do your cultivation perfectly, that is easily operated, and **FREE** from mechanical trouble.

Once over the ground and the "Simar" Rototiller leaves a more perfect seedbed than can be obtained by any other method, and because of the unique design of the tynes there is no possibility of "Hard Pan."

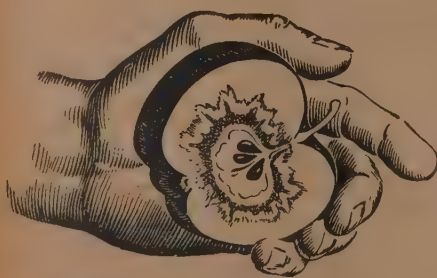
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Borax fertilization has increased the average crops of saleable fruit in one typical case from 3.61 to 10.6 boxes per tree in **ONE** year.

Are you getting a maximum crop? If not, spread "Twenty Mule Team" Borax around all trees (about 3 feet from base) — either immediately after blossoming or in autumn. Approximate quantities 46 lbs. to the acre.

The most satisfactory results are obtained with "Twenty Mule Team"—guaranteed 99.5 to 100% pure borax.

Write for full particulars to your nearest agent.

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L. M. Macdonald, Hayward Bldgs., Charles St., Adelaide.

W. H. MacLennan Pty. Ltd., Henty House, Melbourne, C.I.

H. M. Russell & Co. Pty. Ltd., Eagle & Charlotte Sts., Brisbane.

Short & Co., Auckland, C.I.

Swift & Co. Pty. Ltd., 26 Clarence Street, Sydney.

BORAX CONSOLIDATED Ltd., Regis House, King William St., London, E.C.4.

Mr. T. W. McMahon, of Kurrajong, said he had been conducting a citrus nursery in conjunction with orcharding. He had been advised that New Zealand growers, who were now importing citrus trees largely, would soon be independent of citrus imports from Australia.

When a member of the Board of the Fruit Growers' Federation, he attended the Conference when the proposal for an Orchard Registration Fee was brought forward. The then Minister for Agriculture, Mr. Chaffey, had stated that a better term would be "Registration Fee" (in preference to "Orchard Tax"), and if after five years' trial growers found it was of no benefit, they could ask the Government for a poll.

Mr. E. Mitchell, Sackville (Vice-President of the Hawkesbury District Citrus Growers' Association), considered that three main reasons for the recent slump in the citrus industry were the present high tariff, the N.Z. embargo on the importation of N.S.W. citrus fruits, and the great economic depression. The industry would regain its former prosperous status if the N.Z. embargo were lifted. This would take a sufficient quantity off the local market to raise the Sydney market prices by 2/- a case; he was not in favor of Governmental interference or Board Control.

Mr. Blick, manager of the fruit and vegetable section of the Producers' Distributing Society, told of difficulties surrounding the fruit export trade, and suggested that instead of inspection being made at the ship's side, just prior to loading, it would be better if the needed supervision in instruction in fruit packing in individual districts, where a preliminary inspection could be done, with the final inspection (mainly on the score of condition) at the ship's side. All packing houses should be properly equipped and registered.

There was a difficulty in obtaining regular refrigerated space, which had retarded the building up of export markets to India, Ceylon, Palestine, Egypt, and Eastern countries. Increased local consumption would materially assist in solving some of the export problems; educational publicity would achieve this objective.

Mr. Blick further stated that exporters, in an endeavour to fulfil overseas orders, would obtain on the local market fruit classed as "Standard," only to find such fruit rejected from export under the standard grade.

The Commissioner indicated that in this matter there was just cause for complaint.

In reply to a question by the Commissioner as to the control of packing being removed from the growers, Mr. Blick said he thought that growers, if properly organised, should retain control and do their own packing, marketing and exporting.

Mr. L. T. Pearce, market representative of the Fruit Growers' Federation, stated that the wastage in citrus fruits was greater than that of pome, stone, or tropical fruits.

In reply to question as to the avoiding of wastage through the operation of grading regulations, Mr. Pearce stated that he did not think that any grading regulation could prevent growers from forwarding fruit to the

market in the hope of getting it sold. He did not think auctions at present would be satisfactory, owing to lack of standardisation.

Mr. A. S. Brown, President of the Central Coast Citrus Association, stated that many properties in the Ourimbah district had been purchased at too high a price. The economic depression, drought and hail were factors in the non success of many growers. Organic manure was needed, but this was not being applied by 50 per cent. of the growers. The average return was 1½ cases per tree, whereas the crop should reasonably be at least 3 bushels per tree.

Mr. A. E. Lillicrap (Mangrove Mountain) stated the voluntary system for organising the industry had failed. The orchard tax provided for all growers to contribute their share. The average life of an Orange tree was 30 years.

Mr. F. B. Mackenzie, President of the Kurrajong Producers' Co-op. Association, and a member of the Board of the Fruitgrowers' Federation of N.S.W., recommended a poll on the subject of the Orchard Tax every five years. He was not in favor of the Fruit Marketing Organisation Bill, recently brought forward by the Federation. This Bill was a combination of the Queensland Fruit Marketing Organisation Act plus the worst points of the Marketing of Primary Products Act. He favored some form of controlling the industry provided it included control of production as well as marketing.

Mr. A. Wimple, of Maraylya, stated he believed the N.Z. embargo on Australian citrus fruits to be purely a Federal political matter. He considered expenses of running the Federation were far too high. Expenses had risen from £1,383 in the first year to about \$5,000 for last year. While not opposed to the Orchard Tax, he believed much of the money was wasted. The Maraylya Branch of the Federation was utterly opposed to the proposed Fruit Industry Marketing Organisation Bill. As a poultry farmer as well as an orchardist he condemned the Egg Board and such forms of controlled marketing.

Mr. Leslie H. Mosse Robinson stated that 12 years ago he had resigned his position as Lieutenant Commander in the Australian Navy, and paid \$3,500 for 54 acres at Narara, 16 of which has been planted. Marketing in Sydney would be improved if agents kept effective records at the time of sale. It was distressing to see the number of neglected and abandoned orchards in his district. At the request of the Commissioner, witness detailed a system of financial assistance and appraisal on a 5 years basis to bring these areas into profitable production.

Mr. W. E. Kirkness, orchardist and Chairman of Directors of the Gosford Bulk Loading Co-op. Society, said that much of the failure in citrus growing in his district had been due to purchasing at inflated prices, and the planting being on unsuitable land. He advocated straight out grants in the form of sustenance.

At a later stage the Citrus Growers' Defence Association withdrew from the enquiry.

N.S.W. HOURS OF SHOPPING.

Fruit Shops May Remain Open.

THE judgment issued by the New South Wales Industrial Commission at the end of September in relation to the shopping hours of fruit and vegetable retailers, came as something of a surprise to many people in the industry.

Last July the hours of closing for such shops were fixed at 8.30 p.m. on Mondays and Thursdays and 11 p.m. on Fridays and Saturdays during the Winter; and during the Summer, at 10 p.m. Mondays to Thursdays and 11 p.m. on Fridays and Saturdays. This award, which also involved the payment of certain wages to employees, appeared to be a forward movement in the retail business, and it was believed by many that regular trading hours and the observance of a wage log would generally improve the conditions of retailers, providing exemptions could be obtained at such places where much business had occurred late at night and at week-ends.

The Board of the Fruitgrowers' Federation of New South Wales had considered the position and decided to ask the Court that certain exemptions would be granted, and, in pursuance of this purpose, when a recent appeal was heard, the Federation gave evidence in regard to its opinions.

It was perhaps fortunate that around the same period the Industrial Commission was considering the hours of trading for the sale of tobacco, cigarettes and confectionery, and the comments of Mr. Justice Brown, Mr. Justice Cantor and Mr. Justice Webb indicated that they considered the public had a right to purchase their requirements until a reasonably late hour in the night.

It is probable that the awards suggested would have resulted in fruit and vegetable shop assistants assuming that occupation as a form of regular employment, unlike present conditions; and it is also probable that the alleged under-payment of employees by certain retailers would have been largely checked. Improvements in these directions would have resulted in fruit and vegetable retailing businesses obtaining a goodwill and equity that had not previously existed, and the position of retailers would have become more substantial and responsible. There, however, was a very grave danger that the avenues for the distribution of fruit would have been greatly limited by the rigid enforcement of the early closing and the Sunday closing as was suggested. It was because of this danger that the Fruitgrowers' Federation made representations to the Court that exemptions be made at seaside resorts, in the vicinity of railway stations, and such places as King's Cross, with the unexpected result that fruit and vegetable shops in the metropolitan district can now remain open until 11.30 p.m.

Said one actor to another, "Have you many lines to speak in the new play?"

"No," was the reply, "I'm taking the part of the husband."

INVESTIGATION BEING CONDUCTED INTO APPLE AND PEAR INDUSTRY.

A report made by the Prime Minister (Mr. Lyons) at Canberra on November 16 stated that the Federal Ministry had commenced an investigation into the Apple and Pear industry, which the Commonwealth Government had been assisting financially since 1933.

The investigation was being conducted by officers of the Department of Commerce, and Mr. W. M. Carne. Matters that would be studied would include a system of approved packing sheds and the organisation of a shipping programme that would allow regularity of supplies of Australian fresh fruit on the English market.

All exporting States were being asked to co-operate in the investigation, stated Mr. Lyons.

APPLE AND PEAR BOUNTY.

PARTICULARS are now to hand regarding the Apple and Pear Bounty for 1937.

Under the Apple and Pear Bounty Act, 1937, a grower is entitled to claim a Bounty of 2½d. per bushel case of Apples and Pears exported by himself, or sold by him for export from the Commonwealth during the year ended December 31, 1937.

These claims must be made in ink on forms procurable from Post Offices in fruitgrowing districts. Victorian fruitgrowers may also obtain forms from the Fruit Growers' Relief Committee, Department of Agriculture, Melbourne, C.2, who will also supply any further information required.

A statement of accounts from the purchaser should accompany each claim, and the declaration must be attested by a Justice of the Peace or a Commissioner for Affidavits.

The completed form and supporting documents should be forwarded to the Orchard Supervisor of the district as soon as possible, but not later than June 30, 1938. A list of orchard supervisors appears on each claim form.

There is a fine of £500, or imprisonment for two years for supplying false or misleading information.

IMPROVED THREE AND FOUR STAR BRAND HAYSTACK COVERS

FOUR STAR PRICES REDUCED (QUALITY UNALTERED)

Heavier Weight Material Now Used in Three Star Covers.

Free of Sales Tax to Primary Producers.

NEW PRICES SEASON 1937-38

Size.	Price***	Price***
12 x 20ft. . .	£2 2 0	£2 14 0
12 x 24ft. . .	2 8 6	2 19 0
12 x 27ft. . .	2 14 6	3 6 0
12 x 30ft. . .	2 19 6	3 14 0
12 x 33ft. . .	3 4 6	3 19 0
18 x 20ft. . .	3 3 0	3 15 0
18 x 24ft. . .	3 16 6	4 11 0
18 x 27ft. . .	4 3 0	4 19 0
18 x 30ft. . .	4 9 6	5 7 6
18 x 33ft. . .	4 15 6	5 15 6
21 x 30ft. . .	5 2 6	6 2 6
21 x 33ft. . .	5 7 6	6 10 6
22 x 24ft. . .	4 12 6	5 11 6

Size 22 x 24 Waggon size only, includes Ropes. Other sizes, Ropes 3/6 extra per Cover.

WRITE FOR SAMPLES. Obtainable from:-

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21-23 Bellerine Street, GEELONG
Phone 1638. Telegrams: WYETT CO.
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Gerrard Sales and Service

Good Australian packing supplies backed by dependable GERRARD SERVICE

Wire Tying Machines — Wire-Seal Strapping — Flat Band Strapping
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Address Markers — Automatic Label Tackers — Tack Strip for Automatic
Label Tackers — Conveyors — Packing Equipment



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"VALLO" COLLOIDAL SULPHUR

effectively controls

BROWN ROT
— IN —
STONE FRUITS

BLACK SPOT
and Powdery Mildew
of Apples and Pears

OIDIUM OF VINE

Mixed according to directions, "Vallo" Colloidal Sulphur can be effectively used with most spraying materials, but the best results are obtained by combining "Vallo" Lime Sulphur, "Vallo" Arsenate of Lead, and "Vallo" Nicotine Sulphate in the mixture. Write for particulars.

"Vallo" Colloidal Sulphur will remain indefinitely in uniform consistency, is always ready for use, and is easy to mix.

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Dried Fruits Control Board

Thirteenth Annual Report

PRODUCTION DOWN 4,000 TONS.

NEW ZEALAND AND CANADA SHIPMENTS INCREASE.

THE presentation of the thirteenth annual report of the Commonwealth Dried Fruits Export Control Board fittingly commemorates the 50th anniversary of the establishment of the industry in Australia.

The estimated production of dried vine fruits in the Commonwealth for 1937 is 70,500 tons. This will be the largest crop since 1933, and only eclipsed in two other years, 1929 and 1930. The following table shows the production and exports for the past 12 years in which the Control Board has been operating: Expressed in tons:—

	Production.	Exported.
1925	37,217	24,528
1926	35,032	23,125
1927	55,201	41,194
1928	31,850	19,187
1929	71,723	57,788
1930	72,194	56,732
1931	50,549	37,966
1932	58,501	43,265
1933	77,832	65,727
1934	69,591	53,722
1935	66,904	49,840
1936	62,942	46,853

Great Britain is, and has always been, our largest overseas market, but in recent years Canada and New Zealand have taken increasing supplies. Up to June 30, 1937, Great Britain had already taken, of the 1937 pack, 23,404 tons, Canada 10,794 tons, N.Z. 3,474 tons, and other countries 375 tons, showing the relative values of all markets.

Percentage into U.K.

The fluctuation noted in London supplies is very marked when one compares the percentages of Australian dried fruits with the total imports from all sources, year by year since 1925. In 1925 Australia provided 31.2 per cent. of all Raisins entering Great Britain and 11.6 per cent. of all Currants, but in 1936 the

corresponding figures were 29.9 per cent., and 8.7 per cent. Taking each percentage as representing progressive years from and including 1925, the percentages of Australian dried fruits into Britain were:—1925, 21.2; 15.9, 23.5, 11.9, 35.3, 35.9, 25.4, 17.2, 41.4, 29.4, 24.0 and 1936, 20.9 per cent.

Increases to Canada and N.Z.

The increased exports to Canada and New Zealand in the past few years were again extended in the year under review. Showing the appreciated development that has occurred in approximately 5-year periods, the comparisons shown below are interesting. Expressed in tons.

In comparison with the rapid increase of exports to Canada and New Zealand, it might be expected that shipments to the East should have shown similar developments, but the report states that the alleged Eastern demand has been overstressed, and that there is little incentive to anticipate much development in those markets at the present.

Finance.

The report points out that comparatively low rates of levies were made during the year ending June, 1936. The rates for 1937 were prescribed as: Sultanas, 9d. per cwt. (.0804 pence per lb.); Currants, 6d. per cwt. (.0536 pence per lb.); and Lexias, 6d. per cwt. (.0536 pence per lb); but the levy during the 1938 season may have to be slightly increased. A sum of £20,000 was spent in advertising Australian dried fruits in Great Britain and expenditure was £4,771/13/2 more than income up to 30/6/36.

In spite of consumption having dropped in the year under review, the report still warns against the indiscriminate increase of plantings in vine fruits, arguing that corresponding increases in both overseas and Australian markets will be very hard to achieve, if at all.

Increased Exports to Canada and N.Z.

	Sultanas.	Currants.	Lexias.	Totals.
To Canada 1926	261	406	109	776
1931	6,192	2,155	602	8,949
1936	13,329	2,107	694	16,130
To N. Z'land 1926	1,427	310	11	1,748
1931	1,635	657	51	2,343
1936	2,887	621	486	3,994

N.S.W. QUOTAS.

The New South Wales Dried Fruits Board has decided to recommend to the Minister for Agriculture (Mr. Hugh Main) that the following quotas for the purposes of intra-State trade be determined under the provisions of the Dried Fruits Act, 1933:—

- Dried Currants, 19 per cent.
- Dried Sultanas, 17 per cent.
- Dried Lexias, 47½ per cent.
- Dried Prunes, 62½ per cent.
- Dried Peaches, 66⅔ per cent.
- Dried Nectarines, 80 per cent.
- Dried Pears, 37½ per cent.

The quotas were decided upon at a recent meeting of the Consultative Committee of the State Dried Fruits Boards after consideration had been given to the latest estimates of production and consumption in Australia. The Dried Fruits Boards of the other producing States will make a similar recommendation to their respective Ministers for Agriculture.

No recommendation will be made for the present in relation to dried Apricots. It was agreed that no alteration be made in the existing quotas for all varieties of dried fruits other than Prunes, which will be increased from 60 per cent. to 62½ per cent. The Board is of the opinion that the proposed quotas will probably be the final quotas for the present season's fruit.

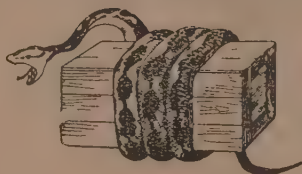
VICTORIAN QUOTAS.

The Minister for Agriculture notifies that the following quotas will operate in Victoria as the percentages that may be marketed within the State.

- Currants, 19 per cent.
- Sultanas, 17 per cent.
- Lexias, 47½ per cent.
- Prunes, 62½ per cent.
- Peaches, 66⅔ per cent.
- Nectarines, 80 per cent.
- Pears, 37½ per cent.

Owing to local consumption of Prunes increasing, the rise from 60 to 62½ per cent. was authorised.

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PYTHON
JUNIOR

Simplifies Your Packing

By Using Wire from the One Coil for All Size Packages. Cut Lengths may also be used

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will tie more cases per thousand feet of wire than any other machine.

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Phone: MA 4392.

South Australian Agents:

JACKSON & SPRING LTD.

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495 ADELAIDE STREET, BRISBANE

Dried Fruits Board (S.A.) Tasmanian News and Notes

TWO MEETINGS IN NOVEMBER.

THE Secretary of the Dried Fruits Board (South Australia), Mr. W. N. Twiss, advises that meetings of the Board were held on November 1 and 22. The following items of business were considered.

The position of dealers in regard to State quotas for 1936 was reviewed and action was decided upon in regard to those whose returns showed infractions of the Board's quota determination.

The matter of small Prunes was considered at length in connection with the resolution of the Australian Agricultural Council. Representations had been made to the State Boards to eliminate from the Regulations all Prunes of 120 to the lb. and over. It was agreed to defer a decision until the next meeting of the Board, pending consideration of the report which had been made by the Board's Investigation Officer after exhaustive enquiries among the trade.

Secretary reported on the progress made by the Prune Advisory Committee in conjunction with the Chief Horticulturist (Mr. A. G. Strickland, M.Ag.Sc.), and the collection of Prune statistics.

The Deputy Chairman (Mr. Hugh Crawford) referred to the official visit by the Board to the River Areas early in October, and the attendance at certain functions at which the Board members were official guests, on the occasion of the Renmark Jubilee Celebrations. The inability of the Chairman (Mr. G. A. W. Pope), to accompany the Board on this visit was regretted.

The Secretary reported he had attended a conference of Executive Officers of the State Boards in Melbourne during the previous week to consider certain administrative matters arising out of the Voluntary Trade Agreement, and to prepare recommendations to the State Boards in regard to revised quotas for 1937. The latest pack statistics were before this meeting, and after conference with the A.D.F.A. Dried Fruit Committee, it was agreed to recommend an increase in the Home Consumption Quota for Prunes from 60 per cent. to 62½ per cent.; quotas already fixed for the other varieties of dried fruits to remain unaltered. The recommendations of the Secretaries' conference were agreed to, and a determination was made accordingly for publication on November 4, 1937.

A letter was received from the Secretary of the N.S.W. Board (Mr. G. A. Try) advising that convictions had been secured in the Griffith (N.S.W.) Magistrate's Court against three growers in the Murrumbidgee Irrigation Area for breaches of the Dried

Fruits Act. The complaints were the result of a special investigation made by Inspector Birt of the S.A. Dried Fruit Board, who had been loaned to the N.S.W. Board for the purpose.

Reports by Board's Investigation Officers on alleged unlawful trading within the State were considered, and action was decided upon where offences against the Dried Fruits Act had been disclosed.

Figures showing dealers' operations to 30/9/37 and the latest pack figures were submitted and noted, and financial and other routine business was disposed of.

Attention was again given to the small Prune problem, and a special report on the production, processing and marketing of Prunes was considered. It was felt that until a special Research Officer was appointed, whose salary and allowance the Board has agreed to subsidise, it was difficult for the Board to reach an immediate decision in regard to the elimination of counts of 120 to the lb. and over.

The fact that the bulk of the Prune production of the State is in the non-irrigated areas and that the grades are largely determined by seasonal conditions in dry rainfall districts, furnishes an explanation of the large proportion of small S.A. Prunes.

In connection with the election for growers' representatives on the Board, a ballot for which would be taken on December 18, 1937, Secretary (Mr. W. N. Twiss) reported that there were three candidates for the two seats for the Irrigated Areas—Messrs. J. B. Murdoch and C. W. Till (the sitting members), and Mr. E. N. Seary, of Renmark. The only nomination for the seat for the non-irrigated areas was that of the present member, Mr. C. E. Russell, who in due course would be declared duly elected for a period of two years from January 1, 1938.

Reports of grading Inspectors on the 1937 season's pack were considered, and the Secretary was directed to draw the attention of individual packers to the several recommendations of the Inspectors in regard to improvements in plant and packing house methods.

The Chairman (Mr. G. A. W. Pope) reported he had received a copy of the resolution of the meeting of the Federal Council of the A.D.F.A. in the matter of the restriction of further plantings of areas for dried fruit, and he had conferred thereon with the Director of Lands (Mr. E. J. Field) with a view to official action.

DRIED FRUITS NOTES

(Contd. on Page 30).

SPRAYING SUCCESSFUL — NEGLECTED AREAS CLEANED UP — BERRY CROP GOOD.

A SUMMARY of information received by the Chief Horticulturist from the District Orchard Inspectors, together with other matter relevant to the culture of fruit follows:—

Weather and Crop Prospects.

October weather is as a rule very variable, and the past month was no exception to the rule, though in general severe winds were conspicuous by their absence, and temperatures were above normal. This, together with a good measure of sunshine, shortened the blossoming period and the season is earlier than usual. Much-needed rains occurred between the 15th and 20th, and soil moisture conditions are now good. Rainfall records representative of the principal fruit centres are as follows:—

Hobart, 263 points, as compared with the average of 233 points.

Launceston, 242 points, as compared with the average of 272 points.

Franklin, 172 points, as compared with the average of 368 points.

Light frosts occurred at times but little damage resulted, though a heavy fall of hail throughout the Huon caused considerable injury to the young developing fruits, particularly on the south side of the trees. Probably 30 per cent. of the crop in some orchards is touched, but it is likely that the fruits will outgrow the injury in many instances. The blossoms prospects reported last month show every indication of a good setting; Democrat and Jonathan are the only patchy varieties. Foliage on Apple trees is well developed, and healthy. With regard to Pears, the position is not so satisfactory in some districts, and Winter Cole is reported as being particularly light.

Spraying and Pests.

From a point of view of spraying, weather conditions have been ideal and though the five continuous wet days coincided approximately with the time for the calyx spray, good weather since then has enabled growers to take all necessary precautions and effect a good cover. There have been few seasons in recent years when pests in general have been less in evidence, and all growers who have carried out the normal spray programme to date report favorably.

"Canary" Fly has now reached the ideal period for control by nicotine sulphate sprays at 1 pint to 80 gallons. Nicotine mixes satisfactorily with lime sulphur, arsenate of lead and colloidal sulphur. As the insects are well advanced in growth, where spraying has not been done and the Fly is prevalent, work should be commenced immediately.

It is practically useless to spray once the flies are on the wing, though it is preferable to wait as long as possible so that as many eggs as possible will be hatched prior to the spray application. The cost of nicotine sulphate has led many growers to seek a substitute, and several cheaper preparations are on the market; results with these to date have, however, proved unsatisfactory. Lime sulphur, when driven up under the leaves, produces a reasonable kill, but it cannot be used sufficiently strong after the blossom stage to be effective.

Red Spider is prevalent in some orchards at the present time, but control sprays for the Canary Fly have undoubtedly reduced its number. The Light Brown Apple Moth has been seen on the wing in the Huon, so that a good arsenate of lead cover must be maintained. In northern areas the Codlin Moth was on the wing as early as October 19.

Reworking.

Favorable weather has enabled growers to complete their grafting operations earlier than usual, and little is now left undone. The longer season thus obtained for union and growth will doubtless be reflected in well-ripened wood which will likely produce fruit buds on the current growth.

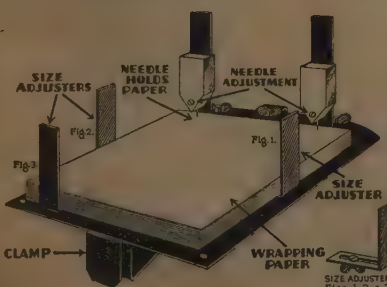
Neglected Areas.

An effort has been made to clean up as many neglected orchards as possible before pest dissemination commenced, and Inspectors report having obtained the support of owners in most instances. Proceedings were, however, necessary in several cases and the Department had to take summary action to ensure compliance with the Regulations.

Apricots.

Much benefit resulted to Apricots from the heavy rains, and most growers are now working up their orchards to preserve the moisture. Some loss has been caused through Botrytis rot occurring on the young fruits. This originated on the dead blossom husks which, owing to calm weather at setting time, were not shed. The fungus causing the rot is seldom really troublesome, but spreads readily from contact, and the thick set of young fruits suffered severely. With the return of warm, dry weather, affected fruits have been shed and the spread checked. Some growers have removed and burnt such fruits, and in smaller areas this has been very effective.

The Improved "FASTPAK" Paper Holder



Has now been improved by:—
Providing a bracket attachment which enables the machine to be clamped on either the Grader or box.

Adjusters have been extended to allow the insertion of a full ream of paper at the one operation.

Double-Needle Control ensures that there is no waste or unsightly torn corners.

Adjustable to take various sizes of paper.

Remarkable for its speed and smoothness and definitely improves Packers' Tallies.

Manufactured by and obtainable from—

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"The Producers' Co-operative."

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Distributors, Local and Overseas for

Tasmanian Butter · Apples · Pears

Suppliers of all Orchard and Dairy Requisites.

Enquiries invited.

7 Murray Street, Hobart, Tasmania

T. W. KIMBER, Managing Director.

Berry Fruits.

Strawberry blossoming has been heavy in most districts, and under average conditions the crop will be a good one. As was the case last year, in one of two areas patches of plants have wilted severely for no apparent reason; specimens are being examined by the Plant Pathologist, and it is hoped to discover the cause and possible remedial measures.

Following the five days rain, Raspberry plants growing in low-lying or wet areas have suffered, and become pale in leaf; the opening of surface drains will frequently lead to rapid recovery, provided there is no delay.

Prospects for Black Currant and Gooseberry crops have improved during the last few weeks, and some of the former are already being picked for culinary use.

TASMANIAN ORCHARDISTS AND PRODUCERS LTD.

Directors' Annual Report.

Reorganisation Eminently Successful.

THE establishment of this company practically amounted to a reconstruction of its predecessor—Tasmanian Orchardists' and Producers' Co-operative Association Limited—following on 4 years under Receivership control.

The varied and complex character of the negotiations leading up to the successful advent of the new company, including the reconciliation of numerous conflicting interest and the placation of dissenting parties, occu-

ried approximately 12 months of arduous effort on the part of its proponent and originator, Mr. T. W. Kimber.

Mr. Kimber, A.I.C.A., who is now managing director of the new company, acted as Receiver's deputy and manager of the old company, and contended with all the usual prejudices arising from the unsatisfactory status of a company under legal control, and including liabilities to deferred creditors amounting to £23,500—mostly erstwhile customers. Under Mr. Kimber's direction, however, the company substantially increased its business, earned steady profits, and reduced its liability to bank by £11,500.

Creditors followed by assenting to a capitalisation of their debts at 12/6

in the £1, and the appended directors' report on the first year's operations of the new company affords conclusive evidence of recovered prestige and success under the new management.

The Report.

The first annual report of the new company was presented to attending shareholders at a meeting on November 19. A profit of £2,764/1/9 was reported with present real assets of £31,114, and a turnover of £258,353 for the year.

The strong liquid position of the company now is noteworthy, and so satisfied is the Commonwealth Bank that it has extended liberal overdraft provision for seasonal requirements. The directors recommended a dividend of 7½ per cent., absorbing £677/13/-, transfer to Reserve Account £2,000, and £510/12/2 to remain on Appropriation Account.

The officials of the company during the year were: — Messrs. H. D. H. Cummins (chairman of directors), Mr. T. W. Kimber (managing director), and Messrs. W. C. Gowans, R. G. Mackenzie, J. H. Mason and H. H. Whiter, whilst Mr. J. N. Morrison is the Secretary.

Fertiliser for Apples

Consistent Treatment Important.

THE effect of fertilisers on a fruit tree is not always immediately obvious, but the experience of most practical orchardists is that an annual application of the necessary plant foods in the form of a mixed fertiliser is an essential practice for profitable and consistent cropping.

It is probably more difficult to lay down a hard and fast fertiliser programme for Apples than for any other orchard crop. The reason for this is that the extent of this year's crop is determined by the blossoms which "set" from buds which were differentiated last year, and this differentiation of fruit and leaf buds last year was probably largely influenced by the general health and vigor of the tree the year before that.

Maintain Tree Growth.

The lesson to be learned, therefore, is to keep the tree in good "balance." A tree should not be over-growthy nor under-growthy. Trees carrying heavy crops need more leaf area in which to manufacture carbohydrates for the crop than light croppers. Some varieties need more leaf area than others. Green varieties can be "pushed" more with fertilisers. Colored varieties need more sun to color the fruit. In this regard a combination of good pruning to let light into the fruit, and common sense manuring, to produce just that correct growth balance, is important. But whatever is done, tree growth should never be allowed to "stagnate." Although the best quality fruit is generally obtained from a half dead tree, that tree is or will soon become unprofitable from lack of yield. It is better to work a small area intensively and profitably than a large area for a small yield, because in the latter case, labor costs are so much higher per case of fruit harvested.

The practical orchardist who studies his trees individually and manures and prunes them according to individual requirements is generally well on the road to obtaining consistently good yields of well colored and good quality fruit.

The "Apple Fertiliser."

From the point of view of a general fertiliser recommendation for Apples, one is safe in suggesting the use of the combination of superphosphate, sulphate of ammonia and potash known as the 2:2:1 mixture. This mixture has proved itself by the satisfactory results it has given many Apple growers in all parts of Australia. In fact, it might well be termed the "Apple Fertiliser," because it is so widely and successfully used on this crop.

This 2:2:1 mixture analyses 8.8 per cent. phosphoric acid, 8½ per cent. nitrogen, and 10 per cent. potash. It will be noted that it is a very well-balanced mixture; being high in both nitrogen and potash. Because it is so well balanced, and is so "rich" in all plant foods, it can be applied at a lower rate per acre than "weaker" mixtures. This offsets the higher price per ton.

Unit Values.

In purchasing fertilisers, it is important to make use of the "unit value" system of evaluation because price per ton is not always an accurate guide to plant food content, and, therefore, "money value" of a mixture. The value of a fertiliser should be determined by its actual content of each plant food, and not by price per ton. A cheap fertiliser per ton may quite easily be costly to apply because of a disproportionately low plant food content. In purchasing fertilisers, therefore, growers are advised to study analyses in relation to price per ton.



Another wise man ends spray hose trouble

Spray hose trouble says "Goodbye forever!" — when Dunlop Spray Hose comes on the scene.

Dunlop is the longest-lasting, most reliable brand you can buy. Definitely non-kinking, it resists to a remarkable degree both the ravages of time and the most corrosive spraying mixtures.

Dunlop Spray Hose is factory tested to 1,800 lbs. — a pressure six times greater than recommended for successful spraying. You will agree that a hose which will stand this terrific pressure, will also stand all the rough handling you can give it.

Don't let Spraying time catch you with a leaky old hose! Treat yourself to a new Dunlop Spray Hose. It costs no more. Dunlop Spray Hose is sold in two types — Dunlop Wrapped and Dunlop Moulded. Both are the finest available in their price class.

Dunlop

SPRAY HOSE

DUNLOP PERDRIAU RUBBER CO. LTD., INCORPORATED IN VICTORIA

See your
local store
or supplier





New Peach Varieties

U.S.A. ANNOUNCES SEVERAL. — CANNING CHARACTERS SOUGHT.

Constantly seeking new varieties of Peaches that will be more suitable than present varieties and having more desirable characteristics for canning purposes, the various Departments of Agriculture throughout U.S.A. are experimenting all the time and Georgia officers now announce discovery of several satisfactory new varieties.

The Experiment Station of the University of Georgia, in a circular recently released, announces the discovery of several new varieties of Peaches said to be much more suitable for American requirements than many other present varieties. A brief description, in the order of ripening, would include the following:—

Mikado: Similar to June Elberta. Trees bloom in mid-season. Fruit large and oval to round in shape. Skin thick and tough and adheres to flesh, yellow in color, with a light-red blush. Pubescence thick and short. Flesh yellow, juicy, sweet, melting and of good quality. Early ripening. Ships well, and is superior to Elberta.

Pioneer: A cross from Belle and Greensboro. Discovered in 1915 at the New Jersey Experiment Station. Fruit large and oval in shape. Skin thin and separates from the flesh easily. Pubescence long and thin. Flesh white, tender, melting and sweet. Ripens ahead of Elberta. Will not stand shipment, but a good dessert variety.

Oriole: A cross from Slappey and Dewey. Fruit medium size and roundish. Skin medium, tough, greenish yellow with dark red wash. Pubescence medium thick. Flesh greenish yellow, soft, stringy, tender, and requires tree ripening. Too tender for shipment. Ripens end of June and early July.

Fair Beauty: Also known as Manley No. 1. Originated in Texas. Tree vigorous and productive. Fruit oval and smaller than Elberta. Skin medium thickness, fairly tough and adherent. Pubescence medium in thickness and length. Golden yellow color with overcolor of scarlet. Flesh golden yellow streaked with red. Firm, juicy, sub-acid flavor of good quality. Ripens two weeks before Elberta.

Cumberland: Cross of Belle and Greensboro. It is a large-fruited sort, as large or larger than Elberta. Fruit oval with a pointed apex. Pubescence rather long and heavy. Skin medium in thickness and toughness, and greenish white with surface rather dull unattractive red. Flesh white, with some red about the pit, coarse in texture, and of good quality. Ripens from two to three weeks before the Elberta. This variety is large and of good quality, but is unattractive and is not suitable for distant shipment.

Delicious: Originated from a cross of Belle and Greensboro. Fruit is medium size and oval in shape. Skin greenish white, with a carmine blush. Skin fairly tender with rather heavy pubescence. Flesh white, tender, melting, sweet and rather flat in taste, and the quality is only fair. The fruit ripens about two weeks before Elberta. This variety is not recommended for commercial use.

Goldfinch: A cross between Slappey and Dewey. Tree vigorous and productive. Fruit medium in size, oval to round in shape, with a rounded

apex. Skin thick and tough, pubescence medium to long and fairly thick, color yellow to orange, with an attractive red blush, flesh orange yellow streaked with red, and is juicy, tender but firm, sub-acid and of very good quality. It ripens ten days to two weeks before Elberta. This variety is a rather promising yellow Peach, attractive in appearance, fibrous and firm enough of flesh and tough enough of skin to be a good shipper. It has a rather rich, sub-acid flavor.

Golden Jubilee: A second generation seedling of Elberta and Greensboro. The fruits resemble the Elberta in shape. Skin is yellow, blushed with red. Flesh yellow, juicy, medium firm, tender, sweet to sub-acid, and of good quality. It has not sized up well, and is not very attractive in shape and color. It ripens about two weeks earlier than the Elberta.

Marigold: A cross of Lola and Arp. Fruit medium to small in size and oval in shape. Requires thinning to acquire commercial size. Skin thin, tough, separates from the flesh, and pubescence fairly long and dense. The color is an attractive yellow covered with red to scarlet. Flesh yellow tinged with red near the pit, somewhat stringy, soft, sweet and of good quality. Fruit ripens ten days before Elberta. This variety is tender and will not stand shipment.

Ideal: The fruit is oval to slightly oblong, resembling the Elberta in shape. The size is generally good, except in dry seasons. Thinning would no doubt be necessary with this variety. Skin is fairly thin, tough, adherent to the flesh, pubescence rather light, and orange yellow in color, covered over with scarlet. Flesh deep orange-yellow, firm, juicy and sweet to sub-acid. Quality superior to Elberta. Ripens a week to ten days ahead of Elberta. This variety is a high quality, yellow, freestone Peach. It is an excellent eating Peach, comparing favorably with Halehaven. The flesh is firm, and the fruit colors well and is very attractive.

Eclipse: A self-pollinated seedling of Belle. The fruit tends to be small unless well thinned, and is oval in form. Skin thin, tough and yellow in color with an attractive blush. Pubescence short and medium thick. Flesh yellow, streaked with red under the blushed portion and near the pit, fine-grained, tender and melting. The stone is free and the fruit ripens a week before Elberta. This Peach has attained some commercial success in New Jersey, but its apparent tenderness would limit it to use for local sales.

Halehaven: A cross between the varieties J. H. Hale and South Haven. Fruit is of good size and roundish in shape. Skin fairly thick and tough, with pubescence of medium length and

rather thick. The skin color is orange-yellow with an overcolor of oxblood red, and very attractive. Flesh golden yellow, tender, melting when ripe, sweetly sub-acid, and perhaps firm enough to ship. It has very good to excellent quality. It is a freestone, ripening about one week to ten days ahead of Elberta.

Sun Glo: Originated in Michigan, and is a selected strain of the South Haven. Fruit round to slightly oval, and attains fair size. Skin is thin but tough, with pubescence medium to heavy and thick, color deep yellow with a scarlet blush. Flesh deep yellow, rather firm when ripe, juicy, and has a rich sub-acid flavor. It is very good in quality. The stone is free. It ripens about a week to ten days ahead of Elberta.

Valiant: An Elberta seedling. Not as fruitful as Veteran, but sets a sufficiently heavy crop to need thinning. Fruits medium to large in size, and round in shape. The color is an attractive yellow with a red blush. Flesh yellow, firm, juicy, and of very good quality. The stone is free. This variety ripens a week ahead of Elbertas.

Veteran: A cross between Vaughan and Early Elberta. Medium in size, tending to be large when the crop set is not heavy, and round to oval in shape. Color deep yellow with an attractive blush. Flesh yellow, juicy, tender and very good in quality. The

stone is free. It ripens about a week ahead of Elberta. This variety sets a heavy crop and thinning is desirable.

Vedette: An Elberta seedling originating in Canada. The trees are productive and the fruits are large and roundish. It is a yellow Peach with an attractive red blush. Flesh yellow, juicy and far superior to its parent in quality. The stone is free. It ripens a week before Elberta. The three varieties, Vedette, Valiant and Veteran, are similar and are vastly superior to Elberta in quality. Although they have not been tested for shipping qualities, they apparently will stand shipment fairly well.

LEETON, N.S.W., 25/11/37.

A visit to the Murrumbidgee Irrigation Areas was recently paid by a party of growers from Kyabram (Victoria). Whilst at Leeton the party inspected the cannery, the Agricultural High School, the Welfare Farm, the Rice Research Station and other places of interest. Much mutual appreciation was expressed.

The question of seepage is still causing much concern to orchardists. This has brought about salt troubles and the loss of valuable trees, plus uncertainty as to how the trouble will spread. Urgent representations are being made to the Irrigation Commission for a relief in this connection.

Exports to October 31

For the ten months ending October 31, the total quantity of canned large fruits exported amounted to 1,672,061 cases, creating a record to date. The destinations are shown and the figures represent cases of 2 doz. 30 oz. tins, or equivalent.

Country.	Apricots.		Peaches.		Pears.		Fruit Salad.		Pine-apples.		Total.
	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	
U.K.	89,243	634,785	700,780	760	16,542	1,442,110					
N.Z.	20,437	59,500	21,841	63	1,670	103,511					
Canada	8,692	67,308	6,125	3,000	14,722	99,847					
East	3,374	8,942	5,992	1,933	136	20,377					
Misc.	982	2,156	2,692	108	278	6,216					
Total	122,728	772,691	737,430	5,864	33,348	1,672,061					

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LOAN CLOSES NOT LATER THAN 13th December, 1937

Commonwealth Treasury,
Canberra.

R. G. CASEY,
Treasurer.

Preserving Company Reports

During 1937 we have been pleased to report satisfactory processing and trading reports from many districts and companies. These supplement reports from business houses of all kinds and impress the fact that economic conditions in Australia have already improved since the recent period of general depression. The following reports are now to hand:—

Henry Jones Co-operative Ltd.

The associated companies maintained their volume of trade during 1937, and their earnings are reflected in the accounts of the parent company. Income earned within the Commonwealth is stated at £145,260, and from outside sources at £58,850, an increase of approximately £5,000 over last year.

The report represents an earning rate of 14 per cent. on the paid-up capital of £1,430,170, and £143,020 has been distributed in the form of a 10 per cent. dividend.

Additions are planned to the Melbourne and Sydney factories, and a

new factory is under construction at Johannesburg, South Africa.

Shepparton Fruit Preserving Co.

A record turnover of £640,187 is reported in the company annual balance sheet for the year. This represents a profit of £31,567, or over £2,000 more than last year. The directors have recommended a dividend of 15 per cent. on ordinary shares, absorbing £13,110, and 6 per cent. on preference shares, absorbing £2,617.

£16,026 has been written off for depreciation. During the year growers were paid the record amount of £125,780, plus an additional payment of £28,942, compared with £16,226 in 1936. The company had created heavy stocks of tin plate in view of the unsettled conditions in the world and rising markets.

Kyabram Co-op. Fruit Pres. Company.

The past year's operations resulted in a profit of £9,162, compared with £6,000 in 1934, £20,460 in 1935, and £10,020 in 1936. The accumulated deficit was reduced by £9,000.

8,000,000 cans of fruit were processed during 1937, as against 7,700,000 in 1936 and 4,300,000 in 1935. Sales reached a record figure during 1937, whilst 220 tons of fruit pulp were manufactured.

Extensions and additions have been made to the plant of the company to give increased handling facilities.

NEW LONDON CHAIRMAN.

L. S. Amery, M.P.

To fill the vacancy caused by the death of Lord Strathcarron as London Chairman of the Commonwealth Canned Fruits Control Board, Mr. L. S. Amery has been appointed.

Mr. Amery is well known in British administrative circles, having been a member of the Cabinet upon several occasions and Secretary of State for Dominion Affairs from 1925 to 1929. He has also been elected as Chairman of the recently established Empire Canners' Council, a position previously held by Lord Strathcarron.

ALIEN VOTING RESTRICTED.

Canned Fruits Board Falls into Line.

Recently, concern has been expressed at the large number of Southern Europeans coming into fruit production in Northern New South Wales and Queensland. They were reported as being averse to organisation as regards marketing regulations, since so many of them cannot read English and are therefore unacquainted with the requirements of the Boards of Control.

Already the Dried Fruits Control Board and the Dairy Produce Export Control Board have restricted such from voting for representatives on the Boards. Now comes news from Canberra on November 12 that the Canned Fruits Control Board has prohibited aliens from exercising voting powers in the election of producer-members to the Board.

The question of the immigration of Southern Europeans into Australia has lately been freely discussed in the Commonwealth Parliament, and the Minister for the Interior, Mr. Patterson, has attempted to restrict criticism by stating that the number of Southern Europeans entering Australia has decreased in the past few years.

Returned soldiers in the dried fruits producing areas of Australia are concerned at the influx of Italians into that industry, and some form of restriction to their activities has been found necessary. It has been pointed out that since 1927, the migration of British settlers in Australia has practically ceased, yet nearly every boat from England as well as all Italian ships, bring large numbers of Southern Europeans to all States of the Commonwealth. The dried fruits industry has been developed almost exclusively by returned soldiers and their objection to the influx of foreigners is very real.

CANNED FRUIT PRICES.

For 1938 Season.

Minimum prices which jam manufacturers and canners may pay Australian growers for fruit in the season of 1938 were announced on December 3 by the Fruit Industry Sugar Concessions Committee.

Prices for Pears are £2 a ton higher than a year ago, and for Clingstone Peaches for canning £1 more than last season. No alteration has been made in prices of other fruits.

The increases in Peach and Pear prices have been made because of the sound stock position of canned fruits generally, and higher prices which are being obtained for Pears on the London market.

The new rates are:—

	For Jam. A ton. £	For Canning. A ton. £
Apricots	10	12
Peaches—		
Clear centred	7	11
Red centred	7	10
Freestone	7	7
Pears—		
Bartlett		10
Kieffer		8
Quinces	7	7
Plums	7	
Pineapples		9/6/8

EXPORT SUGAR REBATE.

New Rates Announced.

The Export Sugar Committee, Canberra, announced during November that the export sugar rebate had been fixed as below:—

To New Zealand—

Fruit products . .	\$5 0 0 per ton
Other goods . . .	\$7 4 0 per ton

To Other Destinations—

Fruit products . .	\$17 16 0 per ton
Other goods . . .	\$20 0 0 per ton

NOW'S the time to Spray with SHELL WHITESPRAY for perfect control of SCALE



Spray thoroughly. Every insect missed is a potential source of future expense, loss of value of your crop, and the reinfestation of your orchard. Use not less than 8 gallons of 1:40 diluted spray per average sized citrus tree.

SHELL WHITESPRAY gives perfect control of all types of scale on citrus and other fruit trees. Possessing unrivalled ovicidal properties, it is invaluable for controlling egg-laying insects—Codlin Moth, Aphis, Spider, etc.

SHELL WHITESPRAY emulsifies readily with either soft or hard water. Spreads freely, completely covering all parts of the tree.

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CITRUS NEWS and NOTES

Culled Citrus Fruits

Palestine and U.S.A. Operations.

A REPORT comes from Palestine that the sale of culls is to be extended. Co-operatives are dissatisfied with the efforts made by the Department of Agriculture to increase local consumption and are therefore organising to this end. A Central Organisation is to be promoted which will undertake to extend sales to European countries, by-product factories, etc.

Investigations will be undertaken to find new avenues for the use of culled citrus fruits. Presses will be sold to householders at a cheap price to increase the use of citrus fruit juices and recipe books will be prepared. Advertising will be enlarged and the present wastage of cull fruits will be lowered.

In Texas (U.S.A.), the Department of Agriculture Laboratory, which was established three years ago, has assisted the Grapefruit by-products industry to extend. In 1933-34 there were only three by-products factories operating, which paid out something like £2,000 for culled fruit.

By the next year, 7 factories were in operation, and paid \$14,000 for culls.

In 1935-36 no less than 17 factories were reported which paid £55,000 for 25,000 tons of culled Grapefruit. This year, reports J. L. Heid, of the Bureau of Chemistry, citrus factories will pay about \$100,000 for 600,000 tons of Oranges and Grapefruit to be converted into canned juices, concentrates, marmalade, wines, flavorings and pickled and candied peel.

A new canning line has been introduced on the market in the form of citrus salad, made of Grapefruit, Orange and Pineapple and garnished with shredded Coconut.

CITRUS ROUND THE WORLD.

New Zealand.—Substituting free Oranges for free milk is said to be popular in New Zealand, according to the Napier Board of Education. Dr. Berry stated that while some children have an antipathy towards milk, none would refuse an Orange.

France.—Looking ahead to her total supply of citrus fruits eventually coming from North Africa, France is sending officers to negotiate with Algiers, Tunisia and French Morocco for increased supplies. Last year Algiers shipped 25,000 tons of Oranges to France, but, if a satisfactory trade agreement is reached, in 10 years time, all France's requirements, 200,000 tons will come from Northern Africa.

Cyprus.—Last season Cyprus exported 220,000 boxes of citrus fruits, an increase of 50,000 cases over 1935. Poor inspection and distribution in Great Britain are leading to complaints, however, and improvements will have to be effected.

Turkey.—Russia and Germany took the bulk of Turkey's 1,150,000 boxes of exported citrus fruits last year. Turkey evidently plans to extend her groves, for she bought 2,810 grafted citrus seedlings from Palestine recently.

Germany.—Known as "Blood Donor No. 54," a resident of Berlin has given blood transfusions that have saved at least 50 lives. He eats as many as 30 Oranges a day, and considers Oranges especially effective in building up blood reserves.

U.S.A.—Two thirds of the Grapefruit trees in U.S.A. are less than 15 years old, 40 per cent. of them under 10 years old, suggesting that production will greatly increase during the next decade.

Six more bud sports in Grapefruit have been recognised in Texas. They produce red flesh and pink skins, and have very fine flavor and appearance. It is expected that the sports will revolutionise Grapefruit in the Lower Rio Grande Valley.

South Africa.—Up to June 4, South Africa had shipped 9,643 tons of citrus fruits, compared with 4,698 tons at that date last year. Deciduous fruit shipments totalled to the same date 74,316 tons, as against 90,985 last season.

VITAMIN C IN ORANGE AND TOMATO JUICES.

Orange juice contains from two to three times as much Vitamin C as Tomato juice. Either of the juices lose Vitamin C if allowed to stand before using. These results were announced by workers in the Bureau of Home Economics, United States Department of Agriculture, in an article published in "The Journal of Home Economics." The Bureau points out, however, that when Tomato prices are much lower than Orange prices, it may be possible to get as much or more Vitamin C protection per dollar from Tomatoes.

The tests included both chemical analysis and feeding trials of four varieties of Oranges—two from California and two from Florida—fresh pressed juice of Tomatoes and juice from a brand of commercial canned Tomatoes. The investigators found that canned Tomatoes contained as much Vitamin C as the fresh sample.

The common household custom of squeezing Orange juice at night to serve at breakfast causes a loss of 10 per cent. or more of its Vitamin C value, even though it stands covered in a refrigerator. Tomato juice from fresh or canned Tomatoes also deteriorates when allowed to stand exposed to the air. This may amount to as much as 40 per cent. loss if the juice stands for several days.

CITRUS FRUIT SHIPMENTS.

Report of Breakdown Checked.

THE following excerpt from the "Leeton Irrigator" comes to us from the Leeton Fruit Distributors for general information of citrus growers and shippers.

It is now generally known that the N.Z. market has been open to citrus shipments from the Leeton and Griffith districts, and growers have taken advantage of this market, whereby some 12,000 cases were despatched by the "Awatea" and 6,000 cases by the "Wanganella."

After the lapse of some few days of railing, word was sent to several of the Leeton and Griffith packing sheds that a high percentage of their pack was rejected at the ships side, and it was necessary for several of the sheds' representatives to be in attendance on the wharf, so as to interview the inspectors regarding the faulty condition of their packs, which brought about these rejections. According to report a definite improvement could be made by careful attention and the mutual co-operation of all growers and packing sheds concerned.

From a general survey of the position on the wharf, it appears that the Department of Agriculture's fruit inspectors were only carrying out

their duties in protecting a valuable market such as we now have open to us in New Zealand. Mr. H. Attwood informs us that his packing shed, which had packed a fairly large parcel for this shipment, enjoyed a 100 per cent. pass.

CURING OF LEMONS.

Various methods of treating and storing Lemons with a view to keeping them for several months have been tried. Storing carefully clipped fruit, vaselined and wrapped in paper of one kind or another, in sand or sawdust, and many other methods have not shown any to be superior to placing carefully handled fruit in boxes and simply storing away in a cool place from which light (which darkens the color of the rind) and wind (the effect of which is to harden the rind) are excluded.

Arrivals of Summer Oranges in Great Britain up to the report of July 7 totalled only 1,207,000 cases, as against 1,598,000 in 1936 and 1,461,000 in 1935 at corresponding dates. Of this quantity South Africa supplied 360,000, an increase of 120,000 over 1936. Brazil supplies were 39,000 cases over 1936, but California supplies dropped to negligible quantities as compared with the 551,000 cases last year up to this date.

Citrus in New Zealand

Number of Trees and Growers

The area devoted to Orange and Lemon production is steadily increasing, according to figures shown in the "N.Z. Journal of Agriculture." Although a decrease of 40 registered growers is reported, there was an increase in 1937 of 10,246 trees over 1936.

	1-50 Trees.	51-350	351-1,000.	Over 1,000.
Growers	2,251	500	81	6
Trees	23,361	66,780	40,821	11,225
Percentage of Total Growers	79.32	17.62	2.85	0.21

As showing the increase in trees, a comparison of the past three years is quoted:—

	1934.	1935.	1936.	Increase 1936 Over 1934.
Lemons	85,973	91,032	96,034	11.7
Oranges	37,399	40,909	46,153	23.4
Totals	123,372	131,941	142,187	15.3

ARE YOU GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features, with a host of others, was THE "MONKEY" GRUBBER.

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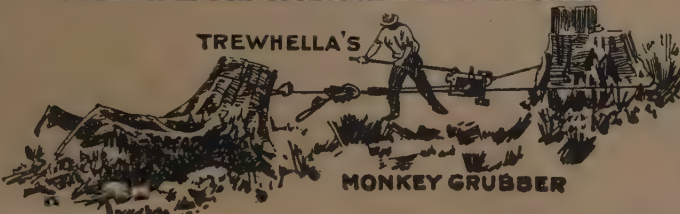
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THE MARKET GROWER

OFFICIAL ORGAN OF THE MARKET GARDENERS AND FRUITGROWERS' SOCIETY OF VICTORIA.
ALSO OFFICIAL ORGAN OF THE KOONDROOK & BARHAM TOMATO GROWERS' ASSOCIATION.

Disease Resistance in French Beans

TWEED WONDER VERSUS BURNLEY SELECTION.

IN the second annual Bean Growing Competition conducted by the Tumby Umbi Branch of the Agricultural Bureau (N.S.W.), an interesting comparison was afforded of the merits of Tweed Wonder, which was used in 22 of the plots, and the Burnley selection of Canadian Wonder, which occupied the remaining two plots. The latter has been acclaimed for its resistance to Bacterial Blight, and has been enjoying considerable vogue in the metropolitan area on this account. In the competition it showed some resistance to Bacterial Blight, but was found to be more susceptible to other diseases, particularly Anthracnose, or Pod Spot, and Mosaic than Tweed Wonder. The Burnley selection is slightly earlier, but the pods are shorter and much flatter than those of Tweed Wonder. In the competition the Burnley selection occupied the 18th and 21st places.

The judge, Mr. A. C. Orman, Senior Agricultural Instructor, strongly advises growers not to sow a large area with any much boomed new variety without first determining by a small test whether it is suitable for the district's conditions, as well as for the requirements of the market.

General Use of Fertiliser.

The plots were $\frac{1}{2}$ acre in extent, and were required to be sown within a given period to place all competitors on an even basis, and to facilitate judging. All competitors used fertilisers, both at planting time and as a top dressing during growth. The rates at planting varied from 1708 lb. to 3 cwt. to the acre, the popular rate being about 10 cwt., while the rates applied as a top-dressing varied from 10 cwt. to 2 cwt. A mixture consisting of blood and bone, superphosphate, and sulphate of ammonia was the most popular fertiliser used at planting, whilst a mixture consisting of superphosphate and sulphate of ammonia appeared to be favored by the majority of growers as a top-dressing. Some growers used potash in their top-dressing mixtures, but Mr. Orman considers that potash would be more beneficial when applied with the seed.

All competitors avoided placing the fertiliser in direct contact with the seed by either mixing the fertiliser with the soil or applying it in bands in furrows alongside or underneath the seed.

The most desirable planting distances for early Beans in the district were found to be seed sown four inches apart in rows spaced 2 ft. 9 in. or 3 ft. apart.

Winner's Methods.

The winners were Messrs. H. King and Son, of Berkeley Vale, whose plot of Tweed Wonder was described by Mr. Orman as one of general excellence. The crop was exceptionally well grown, very free from disease, and promised to yield well. The cultural methods were almost ideal under the conditions. Adequate provision was made for carrying away surplus water and preventing erosion by the construction of contour drains. New land was used, and this was ploughed and harrowed a week before planting. It was hand-worked with a fork hoe, full depth, on the dates of planting, July 21 to 23. The seed was sown every four or five inches in rows 33 inches apart, the drills being opened with a hand plough, and covered with a light scratch hoe. Fertiliser consisting of 3 parts blood and bone, 2 parts superphosphate, and one part of sulphate of ammonia, was broadcast and hoed in (prior to sowing), at the rate of 1,232 lb. per acre. A mixture comprising two parts super. and one part sulphate of ammonia was applied as a top-dressing, at 480 lb. to the acre, on August 24 and 25, in the centre of the rows, and worked in deeply, with a fork hoe. The plot was lightly hoed on August 24 and 25, September 13 and 14, and October 4. The estimated yield was 390 bushels, and the points awarded totalled 123.

Second place was occupied by Mr. C. J. Swadling, of Tumby Umbi, with 122 points, while third place was shared by Mr. W. Moore and Mr. C. Miles, both of Tumby Umbi, with 121 points.

TOMATO GROWING IN N.S.W.

Increase of 50 per cent. in 10 Years.

THE Tomato-growing industry is showing substantial expansion in New South Wales, the acreage devoted to the crop having increased more than 50 per cent. during the last ten years. The increased local consumption of Tomatoes has probably been largely the result of a more widespread knowledge of the high vitamin value of the fruit, and this has been indicated by a more extensive consumption throughout the year rather than as formerly only during the hotter weather.

To supply the continuous demand, Tomatoes have to be grown as early, mid-season, and late field crops, and these need also to be supplemented by fruit produced in glasshouse culture for late Winter and early Spring requirements. Plant breeders of the department are therefore giving attention to the improvement of varieties suited to those different times of cultivation and cropping.

The qualities required in an early market variety, the Director of Plant Breeding (Mr. Wenzholz) states, are early blossoming, and good fruit setting on the lower flower clusters, sufficient foliage to prevent damage of the fruits by sun scald; well-colored red fruits of rounded shape, and free from furrows or cracks, productiveness and disease resistance. Earliana is an American variety which most nearly answers these requirements and which is most widely grown in that country. A somewhat different type of this variety selected some years ago by Mr. John Douglass, vegetable specialist of the Department, and now known as Australian Earliana, is a marked improvement on the original in many respects.

Australian Earliana Leads.

No early maturing varieties of Tomatoes among the hundreds which have now been introduced from many other countries during the past ten years have been found to be equal to Australian Earliana. Many such large fruited varieties of good repute were under observation by Mr. Shirlow at



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"Beauty" (Knapsack) Dusters
"Superior" (Rotary) Dusters

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MELBOURNE

Hawkesbury Agricultural College last season. The seasonal conditions were not favorable for fruit setting but, notwithstanding this, Australian Earliana set fruit on the lower flower clusters more successfully than Glovel, Marketeer, J.T.D., Landreth Rutgers, and Newport 4, and consequently was more productive than any of these. The only two varieties which cropped well in comparison with Australian Earliana under these conditions were Potentate and Antibes Potentate, a variety from the Tomato Research Station, Cheshunt, England has repeatedly cropped well at Hawkesbury College, and it produces fruit of good quality, although this is not large compared with varieties such as Break of Day. Antibes, obtained from the well-known French seed firm of Vilmorin, Andrieux & Cie, produced vigorous plants and very heavy crop with good lower settings. It was free from Fusarium Wilt, and, moreover, had very little Bronze Wilt. Mr. Shirlow describes the fruit as of moderate size, but rather flattened in shape, and not of as good type and quality as Australian Earliana and Break of Day.

Some fixed lines of the cross Red Pepper x Earliana are referred to by Mr. Shirlow as promising on account of their deep smooth fruit. They are to be tested more definitely for yield next season.

Selections of the Australian Earliana x Break of Day cross also continue to show promise, but are not yet fixed for fruit type.

ONION PRICE UNSATISFACTORY.

Production Doubled.

At the Victorian Vegetable Growers' Association meeting at Moorabbin on November 22, the President, Mr. H. V. Barnett, stated that whereas last year 25,000 tons of Onions had been produced, this year the quantity had amounted to 56,000 tons.

Dissatisfaction was expressed at the Onion Board's offer of £2 per ton, plus 10/- freight charge for Early Globes and the executive was instructed to ask for £3/10/- per ton plus freight, as a preliminary price, to be adjusted with subsequent market variations.

A deputation to the Minister for Agriculture was approved when a request will be tendered to amend the Act to enable growers of less than two acres to vote at the next poll on the continuance of the Board.

Los Angeles will cultivate 16,000 acres of Popcorn next year. This year 2,000,000 lbs. of Popcorn were grown in Southern California.

NEW ZEALAND SPINACH.

Popular in Chicago.

A relatively new crop in America is finding popularity in the form of a Spinach known in the trade as "New Zealand," though a report from Le A. Somers, of the College of Agriculture at the University of Illinois does not state its origin.

He claims that greenhouse grower will find it particularly profitable as an Autumn and Winter crop. It requires a minimum of labor and grows well in temperatures suitable for Lettuce. It has been grown for several seasons in the College greenhouses and has been found immune to insect pests and free from diseases. It has been tried out in the Chicago market and has become so popular that its demand is increasing. Grocery stores and better-class hotels are keen on "New Zealand" as a Spinach plant, and it is available when there are few other vegetables obtainable.

Two aeroplanes recently completed the planting of 1,400 acres of Ricin lands at South Dos Palos (Cal.).

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PESTEND SUPERFINE

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Expert gardeners and growers recommend the use of PESTEND SUPERFINE—either for dusting, spraying, or for dressing the soil.

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South Australian News and Notes

INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

The South Australian Fruitgrowers' & Market Gardeners' Association

Minutes of Executive Meeting Held November 26, 1937.

Present.—Mr. W. J. Bishop (President), Messrs. J. G. Potts, F. A. Wicks, G. G. Pitt, L. J. Wicks, J. B. andell, F. Hughes, R. A. Cramond, H. Schultz, I. R. Adams, J. Turner, G. Jennings, W. H. Ind, H. B. Robson, G. J. Strange, R. Hunter, C. idley, A. Elliott, N. T. Hobbs, F. G. ill, A. O. Petersen, W. McKerlie, G. Parsons, T. Playford, M.P., E. iles, and Secretary.

Minutes as sent out taken as read and confirmed.

Correspondence. — R. W. Swan & Co., re property to let; H. Skuse, resigning from Association; Department of Agriculture re fruit in cold storage; Department of Agriculture, re Potato industry investigation; Messrs. Abbott Hamiltons, M.P.'s, re water supply for gardeners, Torrens Valley; Torrens Valley Citrus Society, re meeting to be held December 2, when Mr. Tueller will report on the season's business with New Zealand; Fruit Industry Sugar Concession Committee re final rates of final export assistance; Fruit Industry Sugar Concession Committee re minimum prices for raspberries, 1937/38 season, canning and jam manufacture.

Mr. J. Turner moved, and Mr. H. B. Robson seconded, "that correspondence as read be received and dealt with." Carried.

Sugar Concession Committee.—Mr. J. Turner moved "That this Association point out to the Sugar Concession Committee the disadvantages to South Australia through the meeting being held so late." Seconded Mr. H. B. Robson. Carried.

Water Supply.—Mr. L. J. Wicks moved, Mr. H. B. Robson seconded, "That Secretary reply to Minister's letters, and ask that Department make water available to gardeners at present rate, as the proposed rate of 1/- per 1,000 is considered too high." Carried.

Potato Investigation.—Mr. J. B. Randell moved, supported by Mr. H. B. Robson, "That letter from Agriculture Department be handed on to Potato Committee." Carried.

Resignation.—Mr. Ind moved "That Mr. H. Skuse's resignation be received." Carried.

Medal.—The Secretary stated that application had been made for Medal to be presented at the Royal Show to the winner of Packing Competition. Mr. Hobbs moved "That Messrs. Jennings and Stuart go into the matter and get a medal suitably inscribed." Seconded Mr. F. Hughes. Carried.

Blackboard in Market.—The Secretary intimated that growers had asked if it was possible to have a blackboard placed in the market so that prices could be placed on same. A motion by Messrs. N. Hobbs and F. Hughes,

"That the Market Coy. be asked for permission to place a blackboard in the market for this purpose." Was lost.

Price Tickets.—Mr. A. Petersen moved "That one member from each section confer re placing of price ticket on blackboard already in market." Mr. L. J. Wicks moved, supported by Mr. J. Turner, "That the matter of price tickets be deferred until a later date." Carried.

Sale of Containers with Fruit.—Mr. L. J. Wicks reported on developments in the sale of containers with fruit since last meeting, and stressed the urgency of immediate action, as the matter was now becoming very serious. Mr. I. R. Adams, of the Marion Branch, informed the meeting that at a meeting of that branch a resolution was carried "That the S.A. Fruitgrowers' and Market Gardeners' Association be requested to go into this matter further, and the Branch, wish the former state of affairs, i.e., the return of cases, to continue."

A resolution from the Soft Fruits Section was also brought before the meeting "That if necessary a monster meeting of all fruitgrowers be called to discuss the matter."

After discussion on the matter, Mr. F. Hughes moved "That a general meeting of growers be called for Friday, December 3, at 12 noon in the Board Room, New Market." Seconded Mr. E. Giles and carried.

A motion by Messrs. Turner and Hughes "That no representatives from the Wholesale Fruit Merchants' Association be present," was lost.

Invitation.—Mr. J. B. Randell moved, seconded Mr. L. J. Wicks, "That an invitation to the wholesale fruit merchants to send representatives to the meeting be extended." Carried.

Vegetable Section.—Messrs. L. J. Wicks and W. H. Ind moved and seconded "That Chairman, Mr. A. Day, and Secretary approach the old Vegetable Committee, and call Section together with the view of re-vitalising the Section." Carried.

Price Ticket Delivery.—Mr. L. J. Wicks moved, seconded by Mr. G. H. Schultz, "That the Association stand the cost of delivering ticket in market." Carried.

Mr. N. T. Hobbs moved, seconded by Mr. J. Turner, "That President and Secretary appoint somebody to deliver the ticket." Carried.

Soft Tropical Fruit.—Mr. I. R. Adams, from the Marion Branch, brought forward the matter of importation of soft fruits by aeroplane, pointing out the danger of same, and he moved "That the Association approach the Department of Agriculture with a view of having the Association

safeguarded by the importation of soft fruits by aeroplane, as we are afraid of the danger of ripe fruit." Seconded Mr. L. J. Wicks. Carried.

Reports from Sections.

Tomato.—Mr. F. G. Gill reported that the Tomato season was going along quietly. With smaller quantities available, prices were not what might be expected, but with the improvement of the weather conditions, Tomatoes had become scarce. Short crop was caused mainly through disease, Chinamen's Disease and Leaf Mould being prevalent.

Celery.—Season finished.

Citrus.—Finished.

Cherry.—Mr. W. J. Bishop reported that the Section had had a very successful general meeting. The section was doing a lot for the industry. In the past buyers of factories lines were practically fixing the price, but this year the Section had negotiated for a very satisfactory price. The W.A. position was much stronger this year, and all buyers in that State were buying through the Association. The Section was appreciative of the service rendered by the Association and to offset the expense of such service the Section had resolved to double the Levy.

Soft Fruits.—Mr. F. Hughes reported that the Section had held two meetings, but the general meeting was very poorly attended. The season had just commenced.

Incorporation of Association.—Mr. L. J. Wicks moved, supported by Mr. N. T. Hobbs, "That Secretary be empowered to sign all necessary documents." Carried.

Justice of the Peace.—Mr. F. Hughes moved, seconded by Mr. G. Jennings, "That application be made to Mr. T. Playford, M.P., to make the Secretary a J.P." Carried.

Mr. A. O. Petersen moved "That a list of growers J.P.'s be prepared and posted in the office for the convenience of members." Seconded Mr. F. Gill. Carried.

Finance and Accounts for Payment.—Statement submitted, and accounts passed for payment. Mr. N. T. Hobbs moved, seconded by Mr. L. J. Wicks, "That statement be adopted, and accounts paid." Carried.

Soft Fruit Section

Minutes of Annual General Meeting Held Wednesday, November 17.

Present.—Mr. F. Hughes (in chair), Messrs. J. McGough, N. T. Hobbs, L. J. Wicks, A. Elliott, G. Pitt, H. B. Robson, L. Pethick, L. Western, and Secretary.

Apologies received from Messrs. F. A. Wicks and H. N. Western.

Minutes read and confirmed.

Discussion arose on the sale of immature fruit, and it was resolved that regulations governing this matter be placed in the "Fruit World."

Crop reports submitted showed that generally there would be a medium crop of Clings this season.

Election of Officers.

Committee.—Messrs. F. Hughes, J. McGough, N. T. Hobbs, L. J. Wicks, A. Elliott, G. Pitt, H. B. Robson, L. Pethick, L. Western, A. Floyd, H. Western, F. A. Wicks, E. Warner, and W. C. Verrall.

Chairman and Association Delegates to be chosen by the Committee. (At a subsequent Committee meeting held November 26, Mr. F. Hughes was elected Chairman).

It was resolved that the price ticket as last year be again attempted.

Mr. N. T. Hobbs moved "That delegates bring the matter of distribution of ticket before the Executive at its next meeting." Seconded Mr. A. Elliott. Carried.

Sale of Containers with Fruit.—Discussion on this matter took place, and Mr. N. Hobbs moved "That the Section ask the Executive to further consider this matter, and if thought advisable, call a general meeting of growers to deal with it." Seconded Mr. G. Pitt and carried.

EDUCATIONAL EVENING.

A very fine evening was provided by Mr. H. N. Wicks, Vice-President of the Association, for the small gathering that gathered in Board Room on Wednesday, November 24.

Mr. Wicks is a very keen and competent photographer, and possesses a moving picture camera and projector, and presented to those present films of trips through the Eastern States, Tasmania, and West Coast of our own State, supplemented with a film of the Alps of Switzerland.

Mr. Wicks is a nurseryman at Balhannah, and one of his colored films of many beautiful blooms grown in Adelaide Hills called forth much admiration from those present.

Mr. A. Stuart (Secretary of the Association) moved a vote of thanks to lecturer, and he was supported by Mr. G. Jennings.

It is regretted that more members do not avail themselves of the opportunity of coming to these meetings, which are held each quarter, and which are of such an interesting and educational nature.

The Association is indebted to Mr. Wicks for his willingness to provide the entertainment this quarter.

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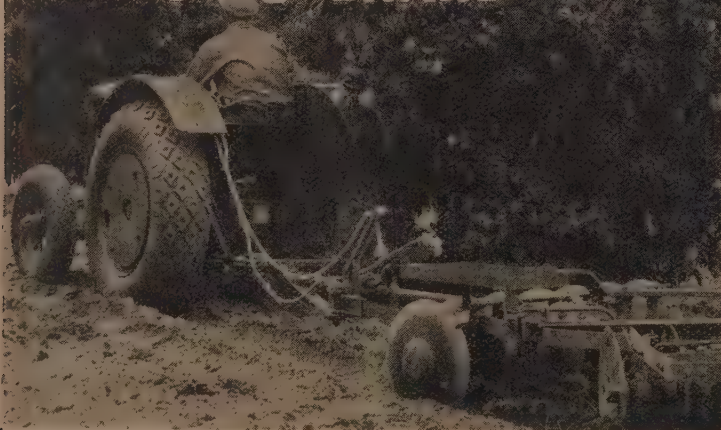
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Fruit and Vegetables (Grading) Regulations, 1937.

ATENTION is directed to the following extracts from regulations gazetted on July 21, 1937, with regard to the grading of fruit and vegetables:—

Part I.—Definitions.

3. For the purposes of these regulations—

"Citrus fruits" means Oranges, Lemons, Mandarins and Grapefruit.

"Diameter" in relation to fruit and certain vegetables, namely, Onions, Potatoes and Tomatoes, means the linear measurements taken through the widest part of the fruit or vegetable at right angles to the axis of the stem and apex.

"Dry" in relation to Oranges or Grapefruit means that the proportion of juice extractable by hand pressure is less than thirty per centum by weight of the whole Orange or Grapefruit. The proportion of juice extractable shall be determined by rotating the halves of a freshly divided Orange or Grapefruit upon a conical glass Lemon squeezer under hand pressure only. The resultant juice shall be strained through calico and then pressed by hand until all the juice possible has passed through the calico.

"Factory" means any building or erection or place where fruit or vegetables are processed or manufactured for sale.

"False mark" means any marketing or description which by reason of anything contained therein or thereon or omitted or removed therefrom, either wholly or in part, is likely to mislead in a material respect regarding the color, maturity, number packing, size, soundness, variety or weight of any fruit or vegetables; or the name and address of the producer of the fruit or vegetables, or the locality in which the fruit or vegetables were produced, or the person by whom they were selected or in any way prepared for sale; and includes every alteration of any brand, description, mark, card, disc, label, sign, slip, tag or ticket, whether by way of addition, effacement, or removal, or otherwise, which makes the marking incomplete or false, or likely to mislead in a material respect.

"Falsely packed" means packed in any way other than is prescribed.

"Foreign substances" means any earthy matter, stones, sand, gravel, or vegetable matter which does not normally constitute portion of the fruit or vegetables.

"Fruit" means Apples, Apricots, Bananas, Blackberries, Cape Gooseberries, Cherries, citrus fruits, Currants, Figs, Gooseberries, Grapes, Loganberries, Loquats, Mangoes, Nectarines, Papaws, Passionfruit, Peaches, Pears, Persimmons, Pineapples, Plums, Quinces, Raspberries, Strawberries, and Tomatoes.

"Grade" shall have relation to color, kind, maturity, number, packing, size, soundness and weight of any fruit or vegetables; and when so required by these regulations, to one, some or all of them as the case may be; and "graded" and "grading" shall have a corresponding interpretation.

"Length" in relation to Bananas means the length of Bananas measured on the outside of the curve from the junction of the fruit at the stem to the apex of the fruit.

"Marks" in relation to fruit or vegetables means any description, information, statements, words, marks, tickets, labels, cards, slips, discs or signs or any suggestions direct or indirect—

(a) with respect to color, kind, maturity, number, packing, size, soundness, variety, weight or grade of the fruit or vegetables;

(b) as to the name and address of the producer of the fruit or vegetables, or the locality in which the fruit or vegetables were grown or produced, or the person by whom they were selected, packed or in any way prepared for market; and

(c) includes any mark which, according to the custom of the trade of common repute, is taken to be an indication of the above matters; and "marked" and "marking" shall have a corresponding interpretation.

"Mature" in relation to Oranges means that the fruit shall be in such condition that the quantity of N/10 soda solution required to neutralise the acid content of 10 cubic centimetres of juice, drawn from the mixed juices of not less than five Oranges taken at random from any package or packages bearing a similar mark, shall not be more than—

(i.) 26 cubic centimetres for Navel Oranges;

(ii.) 30 cubic centimetres for seedling Oranges, usually known as Common Oranges;

and "matured" shall have a corresponding interpretation.

"Mature" in relation to Pineapples means that the sugar content of each fruit is not less than eight per centum of the total weight of the fruit, if packed during any month from April to September inclusive, and not less than ten per centum if packed during any other month.

"Mature" in relation to Apricots, Nectarines, Peaches and Plums means that the fruit has reached that stage of maturity which ensures normal completion of the ripening process.

"Normally clean-skinned varieties" in relation to Pears means Pears of any of the following varieties:—Josephine de Malines, Williams Bon Chretien, Howell, Doyenne du Comice, Beurre d'Anjou, Packham's Late, Clapp's Favorite.

"One variety" in relation to fruit or vegetables means fruit or vegetables which show the same varietal characteristics.

"Open package" means any package which has been left unclosed from the time in which the fruit or vegetables have been packed therein until such fruit or vegetables have been sold for retail distribution.

"Package" means any box, case, sack, or receptacle used for containing fruit or vegetables.

"Prescribed" means prescribed by these regulations.

"Sale" means sale by wholesale or retail sale and includes barter or exchange and also includes offering or exposing for sale or having in possession for sale; and all parts of the verb "to sell" shall have a corresponding interpretation.

"Sound" means free from damage or decay from whatever cause arising, and free from any abnormal condition of or in the fruit or vegetables, whether consisting of or caused by, or due to the operation, development or growth of any insect or fungus; and "soundness" shall have a corresponding interpretation.

"Size" in relation to fruit or vegetables means the diameter of any fruit or vegetables measured from side to side through the widest part of the fruit or vegetables at right angles to the axis of the stem and the calyx or distal end.

"Standards" means the standards set out in these regulations.

"Vegetables" means Asparagus, Beans, Beetroot, Cabbages, Carrots, Cauliflowers, Celery, Cucumbers, Let-

S.A. FRUIT & VEGETABLE GRADING REGULATIONS—(Continued).

tuces, Mushrooms, Onions, Parsnips, Peas, Potatoes, Tomatoes and Turnips. Part II.—Grading, Packing and Handling Fruit and Vegetables—General Requirements.

4. The following methods and standards shall be observed and followed in connection with the grading, packing, stacking, arranging, and sale of fruit and vegetables.

5. Fruit or vegetables contained in any package of any description or size, or comprised in any lot, shall be so packed, stacked or arranged that each external layer on the top, bottom and sides of the package or lot is uniform in respect to grade, and is a true indication of—

(a) the average grade throughout of the whole of the fruit or vegetables contained in such package or comprised in such lot;

(b) the manner in which the whole of the fruit or vegetables contained in such package, or comprised in such lot, is packed, arranged or stacked.

6. Subject to the provisions of Part III. of these Regulations, all fruit or vegetables contained in any package or comprised in any lot, shall be sound.

7. The proportion of foreign substances in any package containing fruit or vegetables for sale, or in fruit comprised in any lot for sale, shall not exceed three per centum by weight of measurement of the total contents of the package or lot.

8. No person (whether by himself or by an agent or servant, or on behalf of another person) shall mark any package containing fruit or vegetables, or any card, disc, label, slip, sign, tag or ticket affixed to or placed on or in any package, or placed on or surmounting any lot of fruit or vegetables, with any brand, description, information, mark, statement or words; or any suggestion, direct or indirect, or shall take or cause to be taken, any action or actions, either by way of addition, alteration, effacement, omission or removal or otherwise of any marks, cards, discs, labels, signs, slips, tags or tickets, which is, or which are, likely to mislead in a material respect as to—

(a) the color, grade, kind, number, size, soundness, variety or weight of the fruit or vegetables;

(b) the place or locality in or at which the fruit or vegetables is or are grown, produced or packed;

(c) the name and address or recognised packing shed number of the grower or producer of such fruit or vegetables, or the name and address of the person by whom the same were selected, packed, or in any way prepared for market.

9. No person (whether by himself, or by an agent or servant, or on behalf of another person) shall pack or sell any fruit or vegetables in a package unless all previous marks, if any, have been completely obliterated or removed from such package, and unless the outside of the package itself, or a label or ticket affixed in a conspicuous position on the outside of the package itself, is legibly and durably marked with—

(a) the initials of the christian name and full surname of the owner of

the fruit or vegetables; or in the case of a grower, his recognised packing shed number; or in the case of a firm or corporation, with the firm or corporate name;

(b) In the case of Apples, Pears, citrus fruits, Grapes, and Pineapples, the name of the variety or varieties of the fruit;

(c) in the case of Bananas, other than the variety known as Cavendish, the name of the variety or varieties of Bananas;

(d) in the case of Bananas, citrus fruits, Apples and Pears, the grade of the fruit;

(e) in the case of Bananas, citrus fruits, Apples and Pears, the size or number of fruit contained in the package.

Marking as aforesaid shall be in letters of not less than three-quarters of an inch in height if marked on the packages, and not less than one-quarter of an inch in height if marked on a label or ticket.

Where the size of the Oranges contained in any package is indicated by marks showing the number of Oranges contained therein, the number of such Oranges shall be one of the following recognised counts:—248, 225, 200, 182, 168, 154, 140, 126, 112, 96, 84, 75, 68, 60, 53, 45.

10. No person shall sell any variety of Pineapples contained in a package, or comprised in a lot, unless such Pineapples are mature.

11. No person shall sell any Apricots, Nectarines, Peaches or Plums which are not mature.

Part V.—Exemptions.

22. Notwithstanding anything to the contrary in these Regulations:—

(a) Regulation 9 hereof shall not apply to open packages containing fruit or vegetables for sale (including punnets which contain Blackberries, Cherries, Red and Black Currants, Cape Gooseberries, Loganberries, Raspberries, and Strawberries).

(b) the provisions of these regulations shall not apply to any package of fruit or vegetables sold either for purposes other than for human consumption, or for manufacturing purposes if the fruit or vegetables is or are sound.

Part VI.—Penalties.

23. (1) Any person who fails to comply with or commits a breach of these Regulations shall be guilty of an offence.

(2) Any person who grades, packs, stacks or arranges any fruit or vegetables for sale otherwise than in accordance with these Regulations shall be guilty of an offence.

(3) Any person who sells, exposes for sale, or has in his possession or control for the purpose of sale, any fruit or vegetable which is graded, packed, stacked or arranged otherwise than in accordance with these Regulations or which does not comply with these Regulations shall be guilty of an offence.

(4) Any person guilty of an offence against these Regulations shall be liable to a penalty not exceeding five pounds.

Orchard, Vineyard and Miscellaneous Crop Statistics. 1936-37

By A. W. Bowden, Government Statist, in the "S.A. Journal of Agriculture." (Figures in Parentheses Refer to Previous Season.)

1. Orchards.

1. Acreage.—29,755 (29,122) acres, increase 633 acres; trees of bearing age 25,503 (25,320) acres. Approximately 200 acres grubbed or died out—mostly in Counties Adelaide 130 acres, Gawler 24 acres, and Flinders 14 acres. New plantings were 833 acres, chiefly in Counties Adelaide 658 acres, Hamley 46 acres, Light 36 acres, Victoria 30 acres, and Hindmarsh 20 acres.

2. Production—Generally speaking, the crops were heavier than the previous year. (a) Apples, 841,504 bush. (939,240 bush.), decrease 97,736 bush. (b) Oranges (calendar year 1936), 654,889 bush. (645,291 bush.), increase 9,598 bush., surpassed the record established the previous year. (c) Pears, 242,336 bush. (228,223 bush.), increase 14,113 bush. (d) Apricots, 357,022 bush. (381,404 bush.), decrease 24,382 bush. (e) Plums and Prunes, 168,017 bush. (157,515 bush.), increase 10,502 bush. (f) Peaches, 146,899 bush. (134,586 bush.), increase 11,813 bush.

Details for other fruit are shown in accompanying table.

2. Vineyards.

1. Acreage.—56,122 (54,219) acres, increase 1,903 acres; vines of bearing age 52,679 (51,680) acres. About 135 acres grubbed or died out, but this was far more than counterbalanced by new plantings—about 2,038 acres—chiefly in Counties Adelaide 680 acres, Hamley 573 acres, Light 367 acres, Stanley 172 acres, Albert 44 acres, Sturt 41 acres and Hindmarsh 34 acres.

The acreage was described as follows:—For winemaking 35,116 (33,851) acres, drying 20,694 (20,057) acres, and table 312 (311) acres.

2. Total Grape Yield.—148,579 (132,559) tons, increase 16,020 tons; average per acre of bearing age 2.82 (2.59) tons. For winemaking 80,484 (72,554) tons, drying 67,513 (59,458) tons, and table 582 (547) tons.

Sing a song of children
As hungry as can be;
Four-and-twenty Apples
Hanging on a tree.
When they shook the branches
The Apples all did fall:
Wasn't that the kind of food
To put before them all.
—Sing to tune, "Sing a Song of Sixpence."

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3. Wine Made.—15,026,502 galls. (13,023,587 galls), increase 2,002,915 galls. Fortified beverage wine 6,115,515 galls (6,521,650 galls), unfortified 1,318,655 galls. (1,233,972 galls.), and distillation 7,592,332 galls. (5,277,965 galls.).

3. Dried Fruits.

1. Currants.—161,858 cwt. (117,415 cwt.), increase 44,443 cwt.

2. Raisins.—Sultanas 189,579 cwt. (173,967 cwt.), increase 15,612 cwt. Other Raisins 38,052 cwt. (36,199 cwt.), increase 1,853 cwt.

Note.—1,068 tons of dried Grapes were used in making wine.

3. Other Dried Fruits.—Apricots 20,555 cwt. (21,183 cwt.), Plums and Prunes 9,266 cwt. (9,915 cwt.), Peaches, Pears, Apples, etc., 12,248 cwt. (9,977 cwt.).

4. Miscellaneous.

Market gardens (including Green Peas 1,040 acres, 2,539 (2,614) acres; Pumpkins and Melons 367 (322) acres, 2,020 (1,932) tons; Tomatoes 558 (622) acres, 199,728 bush. (216,525 bush.); Potatoes 4,657 (4,612) acres, 20,923 (19,257) tons; Onions 507 (432) acres, 3,694 (3,257) tons; other root crops 729 (802) acres; nurseries 193 (158) acres.

5. Oversea Exports.

The value of the total oversea exports of the products of vineyards and orchards for the year 1936-37 was £1,632,662 (£1,628,841), increase £3,821, the principal items being dried fruits £513,844 (£569,302), wine £955,033 (£870,710), Apples £85,858 (£143,939). Complete details of Interstate exports are not available, but annually about £600,000 of wine and brandy are exported to the other States.

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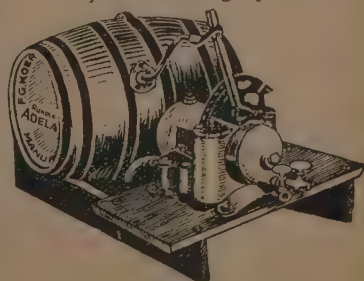
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The S.A. Fruit Marketing Association Inc.

REPORT OF NINTH ANNUAL MEETING

At the ninth annual meeting, held at the Adelaide Fruit and Produce Exchange on November 12, the President, Mr. H. J. Bishop, presided over an attendance of the following delegates:—

Messrs. H. J. Bishop, P. R. B. Searcy, A. G. Strickland, J. B. Randell, M. G. Basey, R. S. McDougall, F. B. James, A. O. Petersen, A. R. Willsmore, R. O. Knappstein, J. S. Hammat, H. M. Charlick, J. H. Dunning, F. F. Redden, G. A. W. Pope, T. Playford, the Secretary, and several growers.

The minutes of the annual general meeting held November 6, 1936 were taken as read, approved, and signed by the Chairman as a correct record.

The President reported on the past year's work of the Association, and the financial statement for the year ending August 31, 1937, was read by the Secretary, and on the motion of the President, seconded by Mr. J. B. Randell, the report and financial statement were adopted.

Apples and Pear Export Council Conference.

Mr. Bishop reported on the work done at the recent conference held in Sydney, and his remarks were supplemented by Mr. Randell, who dealt with the proposed deletions from the fruit export list, etc.

The President stated that it was going to be very difficult to find markets for all the available fruit for the coming season. On present indications there would be 500,000 cases to sell after filling the United Kingdom quota, and shippers were finding it very difficult to sell fruit to the Continent.

Mr. G. A. W. Pope stressed the very serious problem that was facing the industry during the coming season. He stated that the United Kingdom market should return a payable price for the quota, but this was only possible by having the quota in existence. European business was very difficult, and he explained very clearly the

position existing at present, in the European countries. Growers could rest assured that the Government Produce Department, and all shippers, were making every possible effort to find outlets for the fruit.

Research Sub-Committee Report.

Mr. Randell reported on the work of the Research Sub-Committee, but stated that in view of the fact that no experimental work was now being carried out by members, and in view of the lack of interest shown in research work in other States, the Research Committee would probably go into recess after its next meeting.

Election of Officers.

Patron, Mr. T. Playford; President, Mr. H. J. Bishop; Committee, Messrs. G. A. W. Pope, P. R. B. Searcy, R. S. McDougall, F. B. James and six growers—Messrs. H. N. Wicks, A. O. Petersen, M. G. Basey, J. S. Hammat, J. B. Randell, R. O. Knappstein; Auxiliary Committee, Shippers, Messrs. D. Norsworthy, G. Mack, H. M. Charlick, A. Filsell, C. E. Russell, Growers, Messrs. C. L. Winsor, M. Vickers, R. G. Hannaford, W. W. Miller, T. Playford, R. A. Cramond, H. Lewis, F. Redden, Rowley, S. M. James, G. Quinn, A. G. Strickland; Research Committee, Messrs. H. J.

Bishop, H. N. Wicks, J. B. Randell, R. O. Knappstein, M. G. Basey, J. S. Hammat, R. G. Hannaford, F. B. James, A. O. Petersen, W. W. Miller, T. Playford, R. A. Cramond, M. Vickers, Rowley, F. Redden, G. Quinn, A. G. Strickland, S. M. James, C. L. Winsor, H. Lewis.

Mr. A. L. Gniel (Chartered Accountant, Aust.) was re-appointed as Auditor.

All district delegates were re-appointed.

THE SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

Monthly Executive Committee.

The monthly executive meeting was held at the Adelaide Fruit and Produce Exchange, on Friday, November 12, 1937, when there were present:—

Messrs. H. J. Bishop, P. R. B. Searcy, A. G. Strickland, J. B. Randell, M. G. Basey, R. S. McDougall, F. B. James, A. O. Petersen, A. R. Willsmore, R. O. Knappstein, J. S. Hammat, H. M. Charlick, J. H. Dunning, F. F. Redden, and the Secretary.

Minutes of monthly meeting held October 1, 1937, were taken as read, approved and signed by the Chairman as a correct record.

Financial statement was submitted by the Secretary and received. Accounts passed for payment as per list, £125/13/3.

Correspondence.

Letter from Mr. A. G. Strickland forwarding three sets of trade publicity material used in the United Kingdom for advertising Australian Apples and Pears.

Letter from Dr. J. Davidson, Waite Agricultural Research Institute, advising that from the information available at present there was no indication that thrips would occur in serious numbers in South Australia this season.

Letters from Australian Apple and Pear Export Council re trade with Manchester; enclosing minutes of Empire Fruit Council meeting held in London on August 25, 1937; re export to Czechoslovakia; re Apple Industry in Palestine; re fruit for France.

General Business.

The President read portion of a letter from the Elgin Gas Corporation re their method of carrying fruit.

At the recent conference of the Apple and Pear Export Council a proposal had been made that the advertising levy should be diverted to a fighting fund. After discussion it was decided that our delegates be advised to agree to any motion to divert part of such funds on a basis to be arranged with the English subscribers to the fund.

The Secretary advised that the C.I.C. had notified him that they had decided not to go on with their proposals in regard to hail insurance.

ITEMS OF INTEREST.

When Mr. S. M. Bruce, High Commissioner for Australia, opened the 1937 Apple season in London, he took the part of auctioneer and sold a consignment of fruit in aid of the Wholesale Fruit Trade Benevolent Fund and the Children's Country Holiday Fund. The consignment realised £136.

The "auction" was held at the London Fruit Exchange, Spitalfields, where Mr. Bruce was received by Mr. Ernest Simons (Chairman), and the directors of the London Fruit Exchange Brokers' Association.

Mr. Bruce has always shown an active interest in the Australian Fruit Industry, and his services are highly esteemed.

Cables—Monro, London

Codes—A.B.C. 5th Edition and Bentley's

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The Most Important Fruit-Distributing Organisation in the World.

COVENT GARDEN MARKET, LONDON, and SMITHFIELD MARKET, MANCHESTER

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Sales on Commission, by Private Treaty only.

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Our Sale Rooms are the largest and most up-to-date in England; consignments are therefore displayed to the best advantage, consequently, our returns are the best.

We have specialised in the Sale of Australian Apples and Pears by expert salesmen for many years past, and we have the largest and best customers in Great Britain amongst our clients.

Bigger and better business is our objective.

We make advances to cover cost of freight, etc.

(Established 1862)

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Chief Agent in Aust.—Major H. Dakin, V.D., Goldsbrough House, Macquarie Place, Sydney, N.S.W.

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The Westralian Farmers Ltd., Perth.

South Australia

Mid-Murray Notes

GOOD VINE CROP PROSPECTS — BLACK SPOT SMALL — COVER CROPS — SWINGING WIRE FOR GRAPES — OIDIUM — PREPARING FOR HEAVY CROP — "SKY SCRAPER" RACKS — SOIL DEFICIENCY STUDIED — SHOT HOLE FINGERS APPEARING.

(By Our Correspondent.)

The prospects for the coming vine crop are very good. Up to the present we have successfully negotiated the frost period without sustaining any loss in this direction, although everything was in readiness for any eventualities in frost-affected areas. In past years it has been demonstrated that frost fighting is an economic proposition, and has not the terrors of pre-heating days.

Black Spot.

A mild outbreak of Black Spot has affected some Sultana vines, but up to the present time the loss from this fungus disease is very small. During the latter part of last season, when periodical rains fell, each rain brought a fresh activity of Black Spot spores, and with this warning there is no excuse for growers not having sprayed with Bordeaux mixture this Spring. With the appearance of even a mild outbreak recently, many growers are taking steps to give what is known as a "bunch" spray.

This spray is chiefly directed on the bunches, and has three ingredients incorporated, viz., Bordeaux Mixture, Colloidal Sulphur, and Arsenate of Lead. The Bordeaux solution is a check to further development of Black Spot, and also acts as a guard against the possibilities of Downy Mildew. Colloidal Sulphur is to prevent the development of Oidium, and Arsenate of Lead acts as a deterrent to the depredations of the grubs of the Light Brown Apple Moth. This "three-in-one" spray is becoming more popular every year, but is as yet by no means general.

Owing to our dry climatic conditions, vine diseases are not general, but only appear with unseasonal rain, and for that reason, preventive spraying is confined to a small band of growers who will not take unnecessary risks.

Cover Crops.

In recent years improved cultural practices has led to the production of bigger crops, the growing of cover crops has stimulated vegetative growth, owing to the presence of increased nitrates in the soil. This brings a crop of fresh problems. We find that the old three-wire trellis is hardly satisfactory for heavy growing Sultanas, and the introduction of a swinging wire is being introduced. This wire is only fastened to the two end trellis posts, and is loose enough to touch the ground, and does not come into operation until the foliage becomes troublesome. It is then lifted, bringing the foliage up with it. The wire is then hooked over a nail hammered in the top of each trellis post. This enables a free circulation of air through the bunches of fruit which hang clear.

Oidium Disease.

As it is not possible to increase crops without increasing the growth of the vine, this increased foliage has been responsible for the development of Oidium, but as this fungus is easily controlled by the use of sulphur, growers are obliged to use larger quantities of sulphur as the foliage increases. Oidium is one of those diseases which works in dark places, and does not like sunlight or fresh air, but develops with humid conditions. In non-irrigated areas this disease does not appear without a fall of rain, but in irrigated areas humid conditions are liable to develop at each irrigation, and consequently stimulate the Oidium spores into

activity. Research workers have found that Oidium develops at about a temperature of 90 degrees Fahrenheit, and at that temperature sulphur fumes develop to choke the spores. Dusting sulphur is used still by the majority of growers, but there is an increasing demand for colloidal sulphur each year for treatment of Oidium.

Increased Crop Predicted.

In all parts of the settlement provision is already being made to handle an increased crop of dried fruit, by the building of additional drying racks. These have been more or less standardised at eight tiers carrying fruit and one tier for berries close to the ground, fifty yards in length and about 9 inches between tiers. A departure from this method has been made by Mr. Murray Price, who has built what is termed "Sky-Scraper" racks.

These consist of racks with sixteen tiers for carrying fruit. The strainer posts are from twelve to fifteen inches in diameter, and are placed 6 ft. in the ground, and are strutted against the nearest intermediate. These racks have the advantage of having the equivalent of two racks under one roof the roof being a very considerable item in the building of racks. Two years ago Mr. Price built two of these racks, and was so satisfied with them that two more are being built this year. At the top of the eighth tier, extra long cross pieces are fixed, so that a platform at this height enables the top tiers to be filled.

Soil Deficiency.

A good deal of interest is being displayed by growers on the possibility of some of our problems being associated with one or other of the minor soil deficiencies. Since the spectacular recovery of citrus trees from Mottle Leaf by applications of zinc oxide as a spray, to supply a zinc deficiency, some Pear growers have sprayed their Duchess Pear trees with this spray in an endeavour to cure them of yellow leaves. Although this remedy is just a mere shot in the dark, three experiments have been made by local growers, the results of which will be watched with interest.

Yellow leaves (or chlorosis) in Pear trees has been very puzzling, and remedies of iron sulphate, sulphur, and sulphate of ammonia have all proved of no avail, and as the trouble appears to be one of soil condition, it may prove to consist of a deficiency of one of the minor soil requirements. Many works have been published regarding soil deficiencies, the most outstanding of which, in South Australia, is that dealing with manganese deficiency in some of the S.A. farming areas. Internal cork is attributed to the lack of boron, "ten yellows" in Nyasaland is due to a sulphur deficiency. Copper and Cobalt are also among the minor soil requirements which have played an important part in producing healthy growth of Oats and Subterranean Clover, and preventing sheep from becoming "coasty." In experiments of this kind, the man on the land is increasingly dependent on the scientist and research worker.

Shot Hole.

Shot Hole fungus has made its appearance in Renmark this year, owing to the wet Winter and cool and damp Spring weather. In the event of an-



Illustration of Sky Scraper fruit drying racks on block of Mr. T. Price, Renmark.

other wet Winter, growers will have to take steps to spray their trees with corrective sprays. It is seldom that Shot Hole in Apricots and Curl Leaf in Peaches makes its appearance in these areas, and growers are not in the habit of taking the necessary precautions to prevent loss in this direction, but in the past two years Curl Leaf has caused quite an amount of damage to trees, and because of its repeated appearance, an intelligent interest is being taken in Winter and Spring sprays to combat it.

Renmark Irrigation Trust.

The Renmark Irrigation Trust called a meeting of ratepayers on November 28 to enable the ratepayers to become conversant with the Trust's activities on all matters dealing with the welfare of the community and the Chairman, Mr. C. H. Katekar, outlined the activities in recent times.

On the financial side of the Trust's affairs, the Chairman pointed out that the assets stood at £124,000 at the last balance, and that the only outstanding liability was a debt of \$5,450 owing to the Government on loan. This loan was being met by repayment of £600 per annum, and the liability was covered by the sale of highlands which brought in the revenue required.

Cement Channels.

A vigorous policy of cement concreting channels had been in progress during the past year. This had a twofold benefit, the first being the improved conditions of blocks adjacent to cemented channels, and the second lies in the fact that irrigation can be proceeded with at a more rapid rate, by reason of channels taking a bigger head of water. It is the Trust's endeavour to complete an irrigation in 28 days, this time being laid down by our scientific workers at the Merbein Research Station as constituting a margin of safety in the event of a heat wave.

New pumping units had been installed to increase the quantity of water pumped, and every effort has been made to make the delivery of water the first consideration. A great deal of trouble has been caused by

AUSTRALIAN DRIED FRUITS DISPLAYED.

Large Vancouver Store Co-operates.

A friend reports the formation of an Australia-New Zealand Society in Vancouver with the object of social intercourse between people from "down under" as well as to assist in telling Canadians more about Australia. A report from a local newspaper which was enclosed stated that the large Department Store of Woodward's, in Hastings-street, Vancouver, recently made a fine display of Australian products, especially Raisins and Currants.

The display was opened by the Mayor and a distinctly Australian atmosphere was provided by the presence of a kangaroo, an emu and a koala bear. The fact that Australia supplied to Canada last year some 17,500 tons of dried fruits when passed through Vancouver, added to the local interest in the display. Moving pictures were also shown by courtesy of the Australian Trade Commissioner to Canada, Mr. L. R. Macgregor.

underground salt water finding its way into the delivery channels, notably the Block E area, but a scheme is in existence to overcome this difficulty. Also, after a rain, the "run off" from salt-impregnated land has been a source of worry, but this is now being diverted into "Salt Creek," and disposed of by means of an automatic electric pump.

A careful watch is kept on the salt content of irrigation water and readings are being made once a day, and more frequently if necessary. During the last irrigation the delivery water on almost every pumping unit only showed a difference of about 2 grains per gallon from that of the River water. The salt content being 5 grains per gallon in the River, and by the time it had reached the intake for the higher lifts the salts had only increased by a few grains. Owing to the unsatisfactory intake for the Block E pumps, it will eventually be discarded in favor of irrigating this section through the 34 ft. channel, which is supplied by the No. 3 pump. This channel is now being concreted as part of a reconstruction scheme, a section of which was finished last Winter, and a further section will be done at the finish of the pumping season.

Bound up with the reconstruction scheme is a plan for dealing with the 60 ft. seepage waters in conformity

PATERSON'S CONCENTRATED CLENSEL

The Perfect Insecticide and Fungicide
Sudden Death to Insect Pests

This general purpose orchard spray is now manufactured in Australia.

Orchardists:

"CLENSEL" is non-poisonous and effective, easy to handle, economical and absolutely harmless to trees and foliage. "CLENSEL" can be used in every season of the year on Apples, Pears, Vine Fruits, Citrus and other fruits. Invaluable for pests which are vulnerable to contact insecticides or for use in conjunction with sprays that are applied for chewing insects and fungus diseases.

Market Gardeners:

"CLENSEL" will be found effective in the control of Cabbage Aphids, Red Spider, Rutherglen Bug, Pea Mite, Cabbage Moth, Onion Thrips, Bean Aphids, Jassids, Leaf Hoppers, Canary Flies and Harlequin Bug.

Write for Leaflets and Further Particulars, Samples, Etc., to—

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Make Your Export Produce a Safe Investment by Shipping to and through SOUTHAMPTON

PEARS and APPLES

A few days saved mean the difference
between profit and loss

There are many reasons why you should ship your perishable produce—particularly PEARS—through Southampton, England's most modern port. Here are some of them:—

Substantial local markets with a fruit sales room actually on Southampton Docks Estate. Quicker and frequently cheaper transit to Southern and Midland Towns. The Southern Railway of England runs express freights from Southampton to all these centres, saving days and money.

London is reached by express freight trains in three hours from Southampton—All fruit unloaded in Southampton to-day will be at Covent Garden, Spitalfields, or Borough Market for early morning market to-morrow, with days saved as against fruit discharged by ships calling at Continental and other outports first. The slight additional cost is altogether outweighed by the tremendous advantages of days saved.

Deterioration is avoided by special arrangements for sorting to mark, and quick insulated trains direct to London.

Southampton cold stores available for storage of produce for local consumption or Midland deliveries. Pears can be discharged from ship to cold store in less than 5 minutes.

Before the next exporting season, consider these advantages, and ask for Southampton Discharge for London Markets.

THE QUICKEST WAY TO BRITAIN'S MARKETS

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with the interest now being displayed on drainage matters in all irrigated areas.

Electric Light Supply.

In dealing with the electric light undertaking, the Chairman, Mr. C. H. Katekar, said that when the scheme was first suggested a guarantee from 220 ratepayers enabled it to be proceeded with. At the present time there are 475 consumers. These include heavy loadings from the Government pumps at Chaffey, the local wireless station (Murray Heights 5RM), Paringa, the Berri area, and the Lyrup Irrigation Settlement.

Roads, Too.

The Irrigation Trust, in their capacity as a district Council, have been responsible for the construction of many miles of roads and have just purchased a mobile rubber-tyred tractor for rapid work and also a caterpillar tractor for heavy work. They have also interested themselves in grassing the recreation grounds and the erection of that fine "H. S. Taylor Memorial" Grandstand, a structure

which any town would be proud of. Mr. Duffield suggested as a recommendation to the Trust that a financial statement should be issued covering the revenue and expenditure account, embracing the three major activities of the Irrigation Trust, viz., distribution of water, etc., District Council affairs, and electric light undertaking.

A good deal of discussion took place regarding the effect of lock pool level on the water table in the low-lying area of Block E. It was explained by the Engineer (Mr. J. Tolley) that the lock level could not be lowered at Renmark without altering the levels higher up the River; this the Trust had now power to do. In a discussion on the by-laws the Chairman said that all the Trust by-laws were now being consolidated, and brought out in a small published form. Mr. J. M. Smith thanked the Chairman and members of the Board for the opportunity given to ratepayers of hearing the present range of activities which have shown themselves to be eminently satisfactory.—"Nemo."

DRIED FRUITS NEWS & NOTES—Continued from page 19

VINE FRUITS IN VICTORIA

Production Down in 1937

According to Viticultural statistics released by the Victorian Government Statist, 1937 showed a decrease from 1936 figures in almost all directions. The following table shows the records from 1932 to 1937.

	1932-3.	1933-4.	1934-5.	1935-6.	1936-7.
No. of growers	2,524	2,553	2,509	2,512	2,458
Acres bearing	36,852	37,385	37,592	37,851	38,329
Non-bearing	2,292	3,100	3,588	3,230	3,566
Grapes gathered, cwt. .	4,200,378	3,579,045	3,239,660	3,463,202	3,903,430
Wine made, gal. . . .	1,610,649	1,691,391	1,276,176	1,683,049	1,818,917
Raisins, cwt.	92,744	86,655	78,532	92,481	90,243
Sultanas, cwt.	758,617	592,581	514,209	617,237	655,090
Currants, cwt.	156,291	149,519	176,023	88,414	152,202

DRIED FRUITS BOARD PROSECUTIONS.

Failure to Furnish Returns.

When the New South Wales Dried Fruits Board proceeded against Alexander De Avilla, of Yenda, New South Wales, at the Griffith Police Court on Tuesday, November 2, for failure to furnish returns, it was stated that the prosecution was the first undertaken by the Board for this type of offence.

Mr. Williams, of the Crown Law Office, Sydney, stated that the Chairman of the Board had required De Avilla to supply certain returns showing dried fruits produced and sold by him, but despite frequent requests the information had not been supplied. However, since issue of the summons an incomplete return had been supplied.

It was stated that the defendant was a returned soldier and had been in ill health and that accounted in some measure for his failure to supply the returns.

In view of all the circumstances the Board asked for a light penalty only.

De Avilla, who pleaded guilty, was fined £2 with 8/- costs in default 5 days imprisonment, and was allowed one month to pay.

Mr. Harris, Police Magistrate, commented that in imposing a light penalty he had taken into consideration the health of the defendant and the fact that the prosecution was the first undertaken by the Board for failure to supply returns.

Betty: "Do you know what I've just been told? When a girl gets married she must look forward to preparing thirty thousand meals!"

Beryl: "Well, fancy having to open thirty thousand tins!"

MR. F. A. JAMES FINED.

At the Mildura Court on November 23, Mr. F. A. James, of Berri (S.A.), was fined £20 on each of four charges of having bought dried fruits that had not been packed in a registered packing shed. A stay of proceedings for 28 days was granted.

Mr. R. M. Warner (who appeared for James) said that the Victorian Dried Fruits Board was exercising discrimination against James in the making and administration of regulation 22. He said that it was a well-known fact that fruit was passing between Mildura and New South Wales, and yet no action was taken against the person who was engaged in this trade.

Mr. Warner said that, if necessary, this case would go to the Privy Council. The regulation would confine the sale of dried fruits grown in Victoria to packing sheds in Victoria, or to intermediate dealers for delivery to the sheds.

After Mr. Kent had announced his intention of recording a conviction, Mr. Warner asked the Bench to impose only a small fine, as Mr. James had been shocked by the decision of the High Court, and he was now going to carry the case much farther. Mr. James had broken the regulation to test the law, Mr. Warner added.

SALES IN GREAT BRITAIN.

Sales of dried fruits in Great Britain for the three weeks ending November 18, as recorded with the London Agency of the Dried Fruits Board, covered 384 tons, of which 52 tons of Sultanas were sold at an average of £47/19/6, 296 tons of Currants at £28/8/8, and 36 tons of Lexias at £64/3/5. Supplies in Great Britain and afloat are now very small.

Motor Cars, Trucks, Tractors

STOPPING RATTLES.

Even in New Cars.

WITH the advance made in recent years in coach and body building, rattles in cars and trucks are being eliminated, and one often wonders at the silent passing of large, loaded trucks, especially when new or not yet knocked about.

Of course there are still many old cars and trucks on the road, veterans that have given good service and have not yet reached the pension stage, but have developed rattles that might be stopped if the owner would take the trouble to go after them. These rattles are not all on the chassis, body, mudguards or other most likely places, however.

In a new car, for instance, the cylinder head is tightened down at the factory as fully as possible, but a cylinder-head gasket is compressible, and it tends to "give" during the running-in period. Therefore, after the first 500 miles, and again at the end of the first 1000 miles, the head should be tightened down as much as possible. It will probably be found that the nuts can be moved to a surprising extent. In doing the work, a start should be made outwards from the centre row of nuts. A very substantial box spanner should be used.

If rust marks appear on top of the engine, the explanation is apt to be that the rubber hose connections with the radiator have taken up and are no longer securely held by their clips. A screwdriver used on the hose clip screw, should prevent a recurrence of this trouble.

Sparkling plugs are apt to loosen in the first two weeks, because they, too, are tightened against copper-asbestos gaskets.

In most modern cars, the generator and fan are driven by a moulded rubber belt. Although this type of belt does not stretch very much, it is apt to bed deeper into the pulley grooves, and examination may indicate the desirability of tightening it. It is a mistake to make it too tight, and thus place too great a strain on the fan and generator shaft bearings.

A small can of penetrating oil is excellent to use when tightening the engine bolts. It can be used on the small control joints of the carburettor and ignition system. A few drops on the accelerator cross-shaft bearings, immediately followed by a drop or two of engine oil, will keep these parts free. The penetrating oil will penetrate the bearing, and, by capillary attraction will draw the engine oil after it. If the engine oil is applied alone, it may remain stagnant outside the bearing.

Road springs have a tendency to loosen in the first few hundred miles, and it will probably be found that the U bolts holding them to the axles will need tightening. If locknuts are fitted, they should be retightened when the main nuts have been set up.

Attention to the body bolts is advisable. They generally have rubber packings nowadays and they may give during the first few hundred miles.

During 1936, China purchased 585 new Diesel trucks and buses, bringing her registration of these commercial vehicles up to 1,170 units. At December, 1936, Australia only had in operation 314 Diesel-engined vehicles. One reason why China favors this type of power plant in heavy service motor vehicles is because of the possibility of their operation on vegetable oil indigenous to that country.

DUST AND THE TRACTOR.

Dust, because of its abrasive action, plays havoc with the mechanism of the tractor engines; it accelerates wear, says E. T. Brown, in "Farmer & Settler." Most tractor owners fit an efficient air cleaner to the carburettor so that dust cannot enter the combustion chambers by way of the induction system, so remember to check the air cleaner frequently. There is always a risk of dust and dirt entering the mechanism in other ways. Every care should be taken to exclude it.

When cleaning the dip-stick for example, non-fluffy cloth should be used; fluff will mix with the oil, and possibly cause a stoppage in one, or more of the oil passages. This is a serious matter. If the lubricating oil is bought in drums, the tap should be properly cleaned before turning it on, while the can used for pouring the lubricant into the engine sump should also be dust-free.

When a plug has to be removed or a valve cap taken out, the part should be cleaned thoroughly—brushing with a wire brush is recommended—before the spanner is used. A few specks of dust finding their way into the combustion chamber will do a vast amount of damage. All tools should be rubbed dry as soon as they are finished with, because if put away oily they become covered with dust quickly.

DIRT IN PETROL FEEDS.

Every precaution should be taken to avoid this owing to the time and inconvenience involved in removing the tank to perform the cleaning operation.

While it may not be possible to exclude dirt entirely, it is not difficult to take precautions to prevent it from entering the petrol lines; for instance, the practice of running on a "near empty" tank should be carefully avoided. Some owners will allow the petrol to get down within half a gallon of empty before filling up, with the result that there is much agitation given to the petrol and dirt is consequently drawn into the lines more readily.

Owners should be warned against allowing the petrol supply to become too low—it costs no more to fill up when the gauge is down to two gallons than when it reaches "empty."

WATER IN PETROL.

(The Editor, "Fruit World.")
Sir,

On page 27, November issue of the "Fruit World" it is advised to mop a petrol tank dry of suspected water with a chamois leather fixed to a stick.

This advice is extremely dangerous, and may probably cause a severe explosion from static electricity.

In the early days of motor cars many fires were caused by straining petrol through a chamois leather.

In the absence of a drain plug, a strip of damp woollen material the outfall end lower than the petrol tank will syphon the tank dry, the petrol can then be strained through a fine mesh petrol strainer, leaving the water behind.

All petrol delivery waggons have a chain trailing under the waggon to ground static electricity.—Faithfully yours,

A. J. FARRANCE.

Vermont, 22/11/37.

First Road Tax

Instituted by Charles II. 300 Years Ago

It will surprise motorists to learn that the first road tax was instituted 300 years ago in England. Charles II., 1637, imposed a tax on coaches. It did not, however, act as a deterrent, for in 1662, the British Parliament passed a law reducing the number of coaches in use from 2,500 to 400.

To-day, 300 years later, the Governments of the motorised nations of the world are collectively collecting over £600 millions annually in tribute from the owners of the world's 40,000,000 automobiles. The most amazing thing about this colossal contribution by motor users is that it is the outcome of a transport develop-

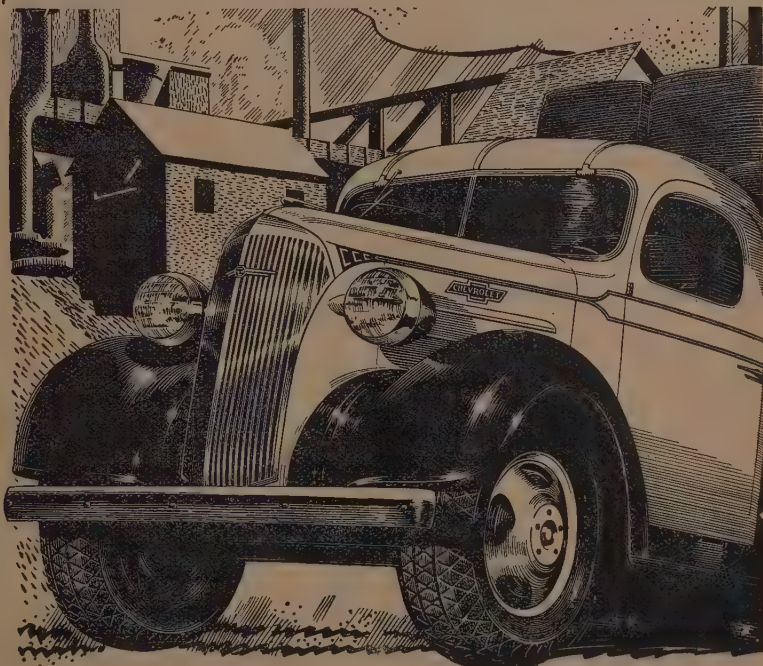
ment that was little dreamt of forty years ago.

When J. B. Dunlop gave the world the pneumatic tyre in 1888, there was then no thought of its use for road transport, apart from on bicycles. Now the automobile industry, thanks to that invention, is one of the world's largest and most important businesses and motor transport has become one of the most compelling forces in shaping the habits of the civilised world. As far as Australia is concerned, it is no exaggeration to say that the automobile has become an essential unit in our scheme of living, and has done more to break down isolation in this vast continent than any other medium.

Economical POWER

Chevrolet brings you the Biggest Output of Real Working Power of any Truck in its Capacity Class Irrespective of Price. With the 1937 Chevrolet truck you have full power at any speed. Whether you are carrying a quarter, half or capacity load, you will find that Chevrolet, thanks to its 6-cylinder overhead valve engine, will give amazing pulling power for very low petrol consumption. New Perfected Hydraulic Brakes—Readily accessible Full Floating Back Axle—All Steel Safety Cab and Rugged frame with U-type and Box section cross members makes Chevrolet your best buy. Call at Preston Motors and inspect any of the Chevrolet range, and then test the model you require under real working conditions.

Chassis Price
from...
£280
Plus Sales Tax



PRESTON MOTORS PTY. LTD.

114 Franklin St., Melbourne, C.1.

'Phone: F 3621.

24-hours' Chevrolet truck service is available at the above address, except between the hours of 10.30 p.m. on Saturday and 8.30 a.m. on Monday.

Sold and serviced by Chevrolet Dealers throughout Australia.

FREE!—A Brand New Chevrolet

One buyer of a Chevrolet Car or Truck in the Metropolitan Area of Melbourne during December will receive a cash prize equal to the amount of his purchase.

Full particulars on personal application to PRESTON MOTORS PTY. LTD., 104 Russell Street, or for trucks, 114 Franklin Street, Melbourne, C.1

CANNED ORANGES IN JAPAN.

Production and Exports Increased.

THE citrus fruit industry in Japan is a very old one, and Mandarin Oranges were introduced into the Kyushu region of Japan from China before 1600. Only during the past 50 years, however, has the demand for citrus fruits become evident,

and it is during this period that Japan has made such progress as to become the fourth largest producer of Oranges in the world. Of the total fruit produced in Japan, 34 per cent. (8,130,000 cwt.) is represented by citrus products, of which Mandarin Oranges comprise 80 per cent.

The industry was previously centred around the eastern and middle parts of Japan Proper, but with the

growth of transport facilities it has been possible to expand the production areas to the southern parts of Japan.

Production Increase.

The growth of the canned Orange industry can be seen in the following figures, representing cases:—

Year.	Production.	Export.
1930	30,000	No Record.
1932	65,000	39,798
1934	533,000	284,176
1935	400,000	233,952

According to an article compiled by the Department of Commerce and Industry:—

"Canned Mandarin Oranges are made either from common Oranges or those known by the name of 'Unshumikan.' In canning the fruit, the skin is first peeled and the loculi are separated. The white strings are removed by a solution of caustic soda or dilute liquid of hydrochloric acid or sulphuric acid, and finally liquefied sugar is put into the can, which is sealed and pasteurised. Though the method of manufacture is very simple, skill is necessary for seasoning the sugar liquid and applying heat.

"That our canned Oranges are much appreciated in the West is due to the fact that the material used is of superior quality, and Western people are familiar with their delicious flavor. Spanish canned Oranges, with their skins unremoved, have long been imported into England. They are comparatively hard, unattractive in appearance, and have a bitter taste. The seeds are removed by cutting the skin at the centre. In addition they are not sweet enough, as a thin liquid sugar is used because of the import duty.

"The rationalisation of the industry, control of production, good guidance given by authorities, and untiring efforts by manufacturers, have combined to advance it to the present condition of prosperity, with every prospect of further development."

In 1935 Japan's production of canned vegetables was 772,813 cases, valued at £407,300 A.C.; but fish makes Japan's greatest canning industry, and in 1935 she processed 5,000,000 cases, valued at £5,695,550 A.C.

Canned vegetables appear to be confined mainly to Japanese types, such as bamboo shoots, fuki, nameko, etc., although Peas, Beans and Asparagus are also processed.

The rapid and efficient development of the Japanese canning industry as

a whole is being watched with great interest because, embodying as it does both the development of primary industries and the economic utilisation of their products with the aid of efficient secondary industry, it concentrates in itself the twofold development of the Japanese economy to-day.

USING UP SMALL PEACHES.

Canning Them as Crushed.

A report just received from California promises relief to orchardists by creating a market for small Peaches.

After seven years of experimentation, the food products laboratories of the University of California announced that there was a good possibility of utilising the relatively large surplus of small Clingstone Peaches as an acceptable crushed product. Peaches of this type have been unmarketable because of their size, and are usually left on the ground or remain unpicked.

At the beginning of the experiments, the crushed Peaches were placed in a number of grocery stores in central California and met with a good sale. However, at that time, high costs of processing precluded the possibility of widespread marketing. Within the past year a number of processing refinements have been worked out and a new experimental pack has just been turned out by a cannery in Sutter county. The crushed Peaches can be put to a variety of table uses, the University pointed out.

The world's oldest produce exchange building is in The Hague, in the Netherlands. A canal, 20 feet wide, flows right through the middle of its big board room. Its members, sitting in tiered seats on both sides of the waterway, make their bids and buy the fruits and vegetables as the loaded barges sail past.

BOOK REVIEWS.

Three valuable bulletins have now been released by the S.A. Department of Agriculture and can be obtained at a cost of only one penny per copy, upon application to the Library of the Department in Adelaide.

No. 322: Reworking Fruit Trees, by R. Fowler, manager Blackwood Experimental Orchard, and E. Leishman and H. H. Orchard, District Horticultural Advisers. The bulletin explains the various methods of reworking in all its phases, the various grafts, after care, budding and many useful hints and explanations relating to reworking. It is generously illustrated to give a visual representation of the methods employed.

No. 324: Celery Growing, by N. R. Quinn, Assistant Horticultural Adviser, explains the development of Celery growing in recent years. South Australia being the largest individual producing State. Selecting the soil, seed and climatic conditions suitable for Celery growing is explained, as are also planting, manuring, blanching and preparing for market.

No. 326: Reworking of Orchard Trees, by H. N. Wicks, a member of the Advisory Board of Agriculture, is a reprint of a paper read at the 48th Congress of the Agricultural Bureau last September. It gives the theory of grafting, time advised, equipment, varieties and methods, and the subsequent treatment of grafts and buds.

All of the above bulletins should be in the hands of every fruitgrower, and studied assiduously in order that the most efficient methods of production can be followed.

Reproduction of an advertising method adopted by two Oregon U.S.A. Pear Growers for advertising their Pears.

OUT HERE on the ranch we don't pretend to know much about advertising, and maybe we're foolish spending the price of a tractor for this space, but my brother and I got an idea the other night, and we believe you folks who read Fortune are the kind of folks who'd like to know about it. So here's our story.

We have a beautiful orchard out here in the Rogue River Valley in Oregon, where the soil and the rain and the sun grow the finest pears in the world. We grow a good many varieties, but years ago we decided to specialize on Royal Riviera Pears, a rare, delicious variety originally imported from France, and borne commercially only by 50-year-old trees. And do you know where we sold our first crop—and the greater part of every crop since?

In Paris and London, where the finest hotels and restaurants know them to be the choicest delicacy they can serve to discriminating guests. And they serve them at about 75 cents each! Our Royal Riviera Pears went to other distinguished tables too—to the Court of

Russia and to the kings and queens and first families of Europe. We got a great kick out of wrapping big, luscious, blushing Royal Riviera Pears in tissue and knowing they were going to be served on golden plates and eaten with golden spoons.

America's Rarest Fruit—Shall We Ship It Abroad?

But I'm getting away from my story. The idea that kept coming to Harry and me was this: Why must all this fruit go to Europe? Aren't there people right here in America who would appreciate such rare delicacies just as much as royalty? Wouldn't our first families like to know about these luscious, golden pears, rare as orchids, bursting with juice, and so big you eat them with a spoon? Wouldn't folks here at home like to give boxes of these rare pears to friends at Thanksgiving and Christmas?

So we made an experiment. We packed a few special boxes of these Royal Riviera Pears and took them down to some business friends in San Francisco. You should have seen their faces when they took their first taste of a Royal Riviera. They didn't know such fruit grew anywhere on earth.

Well, a banker wanted not only a box for home, but 50 boxes to be sent to business friends, to arrive just before Christmas. A newspaper publisher wanted 50 for the same purpose, and a manufacturer asked for 25. And that gave us another idea. We sent 11 sample boxes to important executives in New York, and back came orders for 480 Christmas boxes for their friends.

A New Christmas Gift Idea That seemed to indicate there were plenty of men looking for something new as a Christmas remembrance for friends who "have everything." The next year, orders came in for several thousand boxes of these rare pears, and you never read such letters as we got afterward—not only from the men who had sent the pears and made such a hit, but from folks who received them and wanted to know if they could buy more.

Well, that's how Harry and I got the idea that there must be enough discriminating people right here in the U.S.A. who'd like to do the same thing. So we talked it over the

other night and said, "Let's put an ad in Fortune—and see." We got a shock when we found what it would cost us to do it, but here we are—and you are going to be the judge.

Right now as I write this, it is late September, and out here in this beautiful valley our Royal Riviera Pears are hanging like great pendents from those 50-year-old trees. We'll have to watch them like new babies from now until picking time—not a leaf must touch them toward the last—trained men will pick them gently with gloved hands and lay them carefully in padded trays. They'll be individually wrapped in tissue, nestled in cushion packing, and sent in handsome gift boxes lithographed in colors, to reach you or your friends—firm and beautiful, ready to ripen in your home to their full delicious flavor.

I envy you your first taste of a Royal Riviera—every spoonful dripping with sweet liquid sunshine. And you can just bet that every one who receives a box is going to have the surprise of his life.

We hope that right now you'll make up your mind to get some social friends and let us send them each a box with your compliments. We'll put in an attractive gift card with your name written on it, and



We'll deliver anywhere in the United States proper, wherever there is an express office, express prepaid, to arrive on the date you name. And don't forget to include a box for yourself! A "Medium Family" box (10 pounds) is only \$1.85. A "Large Family" box (double the quantity) is \$3.25. At these low prices these pears cost a mere fraction of what you would pay for them in fine restaurants and hotels. And here's how sure we are you'll be delighted. If, after eating your first Royal Riviera, you and your friends don't say these are the finest pears you ever tasted, just return the balance at our expense and your money will come back in a hurry. Harry and I have agreed you are to be the final judge—and we mean it.

Just one more thing—there are far more folks reading Fortune than there will be boxes of Royal Riviera Pears this year. So, if you want to be sure to get some, we hope you'll send your order right along. We are putting a coupon down below, but a letter is just as good. Only, if you write, please say you saw this in Fortune.

HARRY and DAVID
Bear Creek Orchards, Medford, Oregon.

Bear Creek Orchards, Box 1335, Medford, Oregon.
Send Royal Riviera Pears to the farthest address, all returns charges prepaid, no return (date)..... Enclose a gift card bearing the following name:

Name.....
..... "Medium Family" boxes (10 pounds) at \$1.85 each.
..... "Large Family" boxes (double quantity) at \$3.25 each.
I enclose check (or money order) for \$.....
Name..... (BOOK name please PRINT plainly)
Date.....
City..... State.....

Price money | Quantity | \$1.85 and \$3.25 | Wisconsin | \$2.00 and \$3.45 | Missouri | \$1.75 and \$3.15 | U.S.A. money | California | \$2.00 and \$3.35 | Texas | \$1.90 and \$3.20

A page advertisement in "Fortune," run by two fruitgrowers from a small town in the mountains of Oregon near the Californian border. Advertising for direct trade in small packages of selected products has long been a practice with American farmers, but this is possibly one of the most ambitious single-handed publicity efforts of this nature to date.

Block Courtesy "Neuspaper News"

PORT

.. of ..

LONDON

■

■

The World's

Best Fruit Market

Sales can always be depended on for best quality fruit at highest prices.

Besides its own vast population, LONDON supplies the seaside resorts. Tourists make their headquarters in LONDON and want the best fruit.

LONDON has always been the centre of the Australian and New Zealand fruit trade, and although many efforts have been made to divert it to other ports, the presence of its huge local market with expert distribution agencies will ensure it remaining so.

LONDON is an INTERNATIONAL MARKET where the WORLD BUYERS congregate, and where the highest prices for best produce are always obtained.

All particulars as regards charges, etc., can be obtained from:

Capt. A. W. Pearse, Port of London Authority, 22 Loftus St., Sydney

Export & Commercial News

Apple and Pear Marketing

IMPORTANCE OF THE AUSTRALIAN MARKET — CONCENTRATION NEEDED ON SELECTED VARIETIES — PUBLIC DEMAND FOR QUALITY FRUIT — PROPOSED LIMITED PERIOD FOR SALE OF LOWER GRADES — IMPORTANCE OF ADVERTISING SPECIFIC VARIETIES.

(By J. B. Mills, President, Australian Apple and Pear Export Council.)

THE RESPONSIBILITY for guiding the policy of marketing Apples and Pears in Australia, for the time being, placed with the Australian Market Committee of the Apple and Pear Council, as has also the guidance of the Advertising Campaign through the Co-ordinating Committee of the same body.

In looking into the conditions that at present exist, careful investigators find cause for concern in certain directions, but there is nothing unusual in the difficulties that have arisen. They are, or have been common in all forms of production.

Variety and Strain Selection.

The wheat industry has passed through many stages, and types in common use a few years ago have had to be eliminated for improved varieties, higher nutritional value and better production — demonstrated by careful tests in certain localities.

The Citrus industry has seen the evolution of selected Navel strains and selected Valencia strains to the exclusion of the Common seedling types.

The same can be said of many other primary commodities, and the need for the changed outlook in production

methods is always disclosed in the same way, viz., by overproduction.

The Apple and Pear industry has now reached this stage. We can no longer either at home or abroad, find a profitable outlet for Apples—simply because they are Apples, and if we are to obtain a substantial share of the consumptive power of the people, then we must offer Apples and also Pears which have intrinsic qualities as well as reasonably good appearance.

This is the objective of the Australian Apple and Pear Council and its various Committees.

Public Demand for Quality Fruit.

We have in Australia the possibility of lifting consumption to a point that would make overseas export a secondary consideration, but the development of this local market necessitates a definite obligation on every producer and distributor to see that the consumer is given reasonable protection. The commodity of itself must be of a sufficiently high standard to induce the buyer to return quickly for more.

It may be possible, by intensive advertising to lead the public to eat

Apples as a duty to their health, but our industry has within itself the opportunity and the means of making the consumption of Apples, not only a duty, but also a pleasure. When we attain to this stage our marketing problems will be simplified, meantime we must face up to the facts, and at present it must be admitted that our quality, at least as exemplified by the heavy offerings of fruit in Sydney and Brisbane, to say the least of it — leaves much to be desired: the quality is in many instances appalling — as will also be the losses to the shipper.

The reason for this is quite apparent—it rests with the regulations governing the marketing of Apples and Pears in each State—no State can refuse to receive Apples and Pears so long as they conform to the standards set down by that State for the sale of its own commodity, and naturally when a State is legislating for its domestic producers, it desires—particularly in such a variable type of production as Apples and Pears—reasonable latitude; whereas for the imported commodity it may prefer a tighter set of regulations. This, probably quite rightly, cannot be done.

Limited Period for Sale of Lower Grades.

There is, however, another point of view which should offer the opportunity for a reasonable compromise, and that is the setting up of different standards to cover different periods. At present there exists four grade standards: (1) Extra Fancy; (2) Fancy; (3) Good; (4) Domestic,

the two lower of which are extremely elastic, and in the opinion of the writer, grades (3) and (4) should have a definitely restricted period for their disposal—say for New South Wales and Queensland to the end of May, and after that date only the two first grades should be permitted for sale.

One effect would be to prevent the storing up of inferior fruit—with the saving of charges on this more or less uneconomic commodity — the result would undoubtedly be very beneficial, and with experience, growers would gradually agree to a further restriction of the lower grade periods.

Educating the Public re Varieties.

Linked with this proposal, or with any other, would naturally be the advertising campaign, and in this connection the public must be educated as to the varieties to ask for at given periods. This would mean that there would be substantial advertising of varieties, i.e., there would be a Jonathan period, followed by later fruit—Delicious and Granny Smith, then Romes and Yates, Crofton and Democrat. A popular Apple like Sturmer would be linked with any or all of the foregoing varieties, according to the earliest date of their most suitable edible availability. Culinary varieties could be more or less grouped, but would need special attention apart from dessert varieties. In this way the public would be led to eventually ask for varieties at a time when their best qualities are most evident.

Up to date nothing of an informative nature has been put before the public, and they are left to the tender mercies of any dealer or huckster who cares to delude them.

Many people have purchased types of Apples which could only result in a lack of interest in them, either for dessert or culinary purposes.

It is the duty of the people who grow Apples and Pears to tell the prospective customer all about them. So far our attitude has been — let the public inform themselves, and the result is that we have now informed ourselves that we are more or less out of the market. With proper backing by all concerned, this position can be corrected, and is a much simpler proposition than would at first appear.

LIVERPOOL'S BIG FRUIT TRADE.

£2,600,000 in 1936.

All Sold Locally.

Foodstuffs to the value of £8,600,000 were handled in the Liverpool Wholesale markets during the past year, stated Coun. J. Waterworth, Chairman of the Markets Committee on the occasion of the annual inspection of the markets undertaken recently. Turnover in fruit and vegetables amounted to £2,600,000, meat £4,900,000, and fish £1,100,000. These foodstuffs were distributed to consumers within a radius of 40 to 50 miles of the city. Last year the markets yielded £14,300 in rate aid.

Australian and New Zealand Apples and Pears

Review of the 1937 Season

VERY INTERESTING and valuable report on the 1937 Apple and Pear export season from Australia and New Zealand is to hand from Messrs. F. W. Moore & Co. Ltd., of London.

The report states that the hope for enlarged fruit demand consequent on the Coronation festivities was not realised. Opening prices were satisfactory, and remained so until mid-May. Many of the Jonathans, particularly from Victoria, were not up to usual standard; then two large cargoes from Tasmania arrived later than expected and out of season. Once down the market was slow to recover. For the first three weeks in June the prices remained on the unremunerative level of 5/- to 7/6 for most varieties. Yet, despite competition from soft fruits, Apple prices rose from June 10 onwards.

It is of more than passing interest to note that the Granny Smith variety throughout the whole season was from 3/- to 4/- above all other varieties.

Apples and Pears were shipped from Australia and New Zealand to the United Kingdom and Continent in the 1937 season as follows:—

ARRIVED FROM NEW ZEALAND.

	Apples.	Pears.
United Kingdom	719,515	41,531
Continent, etc.	50,982	633
TOTAL	770,497	42,164

Pear Shipments in the 1937 Export Season.

There were reduced quantities of Pears from South Africa and New Zealand, and an increase from Australia. The total from Australia was 782,108, of which Victoria contributed the record quantity of 477,000 packages to the United Kingdom.

The report points out that the saturation point for Pear marketing is dangerously approaching, especially if New Zealand also lives up to her average Pear exports. Larger quantities of Argentine Pears are coming on to the United Kingdom markets.

Continuing, the report deals with appreciated shipboard stowage experiments, competitive fruits from other countries, freight reduction, etc., together with a table showing the complete detailed statement of ships and quantities from all States of New Zealand.

Future Outlook.

The 1937 Apple crop of North America is estimated to be 70 per cent. larger than the 1936 crop. The United States of America Apple crop is an excess of 200,000,000, or ½ larger than the five years' average.

Uneasiness is expressed in Messrs. Moore's report in relation to the trade agreements which are foreshadowed between Great Britain and U.S.A., when the British customs duty on fresh fruit could come up for consideration, despite the fact that the necessity for increasing the rate of 4/6 per cwt. on Apples and Pears is deemed to be insufficient because of the big variation in the sterling value of the dollar as compared with the value in July '32, when the rate of duty was fixed.

The report, however, concludes on a hopeful note, stating that despite the increased competition from Apples from other countries and British producers, markets in Britain are far from lost to the Australian Apple and Pear industry. Growers, however, must send only the varieties, types, and sizes of fruit which the British market demands. There is little or no demand for large dessert Apples, even Glasgow, which previously took 2½ inch and even 3 inch dessert Apples, now demanding the smaller sizes, 2½ inch to 2½ inch are now called for. In culinary Apples the trade wants only 2½ inch and 2 inch.

ARRIVALS FROM AUSTRALIA FOR SEASON 1937.

	Tasmania.		W. Australia.		Victoria.		N.S.W.		S. Australia.		Queensland.	Total.	
	Apples.	Pears.	Apples.	Pears.	Apples.	Pears.	Apples.	Pears.	Apples.	Pears.	Apples.	Apples.	Pears.
United Kingdom	2,446,855	206,481	432,877	22,770	646,403	476,810	77,736	13,649	222,206	50,040	13,652	3,839,729	769,750
Continent, etc.	239,582	2,266	182,408	7,442	54,768	2,650	4,505	—	24,166	—	—	505,429	12,358
TOTAL	2,686,437	208,747	615,285	30,212	701,171	479,460	82,241	13,649	246,372	50,040	13,652	4,345,158	782,108

SYDNEY CITY MARKETS.

Extensions Nearing Completion.

The New Producers' Market, which covers nearly 4½ acres, is well on the way to completion. It would have been finished about November 1 had it not been for the fact that the steel work could not be obtained.

The market should be completed early in February, and will make a valuable addition to the market area in Sydney.

Every modern facility will be available in this building, and there will be an absence of posts in all the roadways. Ventilation will be good and the system of lighting excellent.

There will be room for 514 stands.

As soon as this market is completed there will be a reorganisation of the other markets which means that during next year the selling facilities in the City Markets will be much better than they have been for some considerable time.

The Superintendent of Markets, Mr. W. J. Williams, B.Sc., has conducted a large number of experiments during

the past year, mostly in connection with the cold storage of several varieties of vegetables experiments have also been conducted with several varieties of fruit, reports of which have appeared in this paper from time to time.

HULL FIRM CEASES BUSINESS.

John Seed & Sons.

Messrs. John Seed & Sons, an old established firm of fruit brokers in Hull, England, advise that, having regard to the present uncertain state of business in the trade, they have decided to discontinue trading operations as from September 30, 1937. However, for family reasons, it is intended to keep registered the name of John Seed & Sons.

In their letter, the firm states that they take leave of many friends in the trade with real regret, being deeply appreciative of their business relationships.

Any correspondence addressed to the firm at 2 Humber-street, Hull, as heretofore will have attention, although they will not remain indefinitely in the offices they have occupied for fifty years.

CITRUS TO NEW ZEALAND.

Large Shipments in November.

The first consignment of citrus fruits to New Zealand in November arrived in good condition and, favored by an empty market, brought high prices. On November 24 the "Manganui" took 12,000 cases of Valencia Oranges and a few cases of Grapefruit.

A further large shipment will go on the "Manganui's" next voyage, about December 15, and will arrive in time for the Christmas trade.



Cable Address: DAVIS, MELBOURNE.

Code: "ABC," 4th and 5th Editions.

Box, G.P.O. 148B.

J. DAVIS PTY. LTD., Fruit Merchants

8 WHOLESALE FRUIT MARKET

Consignments solicited.

One Trial Invited.

Best Prices obtained.

Prompt Advice and Payment.

Telephone, F 3232.

Bankers: The National Bank of Australasia, 271 Collins Street, Melbourne.

Telegraphic Address: "Listeria," Melbourne.
Codes: Bentley's A.B.C., 5th Edition.

Postal Address: G.P.O. Box 555D. Telephone: F 6341.
Private: Windsor 4835.

GEO. LISTER PTY. LTD. (Managing Director: J. R. VAIL)

Selected Agents for all Growers' Organisations Throughout the Commonwealth.
Wholesale Fruit Merchants — Licensed Commission Agents — Importers and Exporters.

No. 12 WHOLESALE FRUIT MARKET, MELBOURNE.

Having carried on a successful business for over half a century, our name stands high in the Wholesale Fruit Trade of Australia. Our spacious premises at Melbourne Wholesale Fruit Market are admirably adapted for the conduct of our large business, and growers are assured that our best efforts are always at their disposal.

Bankers: Commercial Banking Co. of Sydney, Melbourne Branch. Fidelity Bond Guaranteed by I.O.A. Insurance Co.

Silbert, Sharp & Davies
Pty. Ltd.

FRUIT MERCHANTS

17 Wholesale Fruit Market

Phone: F 2287.

REGULAR SUPPLIES OF
GOOD FRUIT, WELL PACKED
AND GRADED,
BRING THE BEST RESULTS.

A. MILLIS & SONS

34 Wholesale Fruit Market

EXPORTERS AND IMPORTERS

Specialty—Prompt Returns. Cheques
every Wednesday. Phone: F 1862

J. W. ROSS

13 Wholesale Fruit Market

WHOLESALE FRUIT MERCHANT

Prompt Returns and Sales Notes Daily.

Tel., F 2426.

G. WOOLF

29-30 Wholesale Fruit Market

WHOLESALE FRUIT MERCHANT

& COMMISSION AGENT

Telephone: F 5550.

BELL, BANSON Pty. Ltd.

Wholesale Fruit Merchants,
20 Wholesale Fruit Market, Melb.
CONSIGNMENTS OF FRUIT AND
VEGETABLES SOLICITED.
Tel: F1023; Private: JW2528.
Bankers: E.S. & A. Bank,
Market Branch.

T. Stott & Sons

FRUIT MERCHANTS

ESTABLISHED 1851.

26 Wholesale Fruit Market, Melbourne, And at VICTORIA MARKETS.

COUNTRY AND INTERSTATE ORDER TRADE SUPPLIED.

SHIPPING No. 41.
PHONE: F 4370.

PROMPT SETTLEMENTS.

CONSIGNMENTS SOLICITED.

Bankers: Bank of Australasia, Melbourne.

Regular Supplies of
Quality Fruit well Packed
and Graded will realize
the Best Prices.

Tim Young & Co. Pty. Ltd.

WHOLESALE FRUIT MERCHANTS

18 Wholesale Fruit Market

Growers can be assured of receiving
the very best service and prompt
returns.

Cable Address "TIYOUNG"

A.B.C. Code, 5th Edition.

Box 28a, G.P.O., Melbourne.

TELEPHONE, F 4321

Bankers:

E.S. & A. Bank Ltd.,
Melbourne—315 Swanston Street.

Stencil or Labels on application.

H. LOUEY PANG & CO. PTY. LTD.

FRUIT AND PRODUCE MERCHANTS

No. 4 WHOLESALE FRUIT MARKET, MELBOURNE

G.P.O. Box No. 795F, Melbourne.

References—E.S. & A. Bank, 225 Swanston St., Melbourne.

Telegraphic Address: GOOD PRICES ASSURED

"PANGANCO."

Cheques Sent Promptly.

F 6532.

CONSIGN YOUR FRUIT TO

R. A. WING & CO.

Wholesale Fruit and Produce
Commission Agents,
No. 37 Wholesale Fruit Market,
Melbourne.

Branches 141 Little Bourke Street
and Victoria Market.

TELEPHONE: F1744.

CONSIGNMENTS OF FRUIT
AND VEGETABLES

Assured Highest Market Rates.

P. A. PATRIKEOS

36 Wholesale Fruit Market

Melbourne

Telephone: F2227.

H. & S. FRANKEL

(Established 35 Years)

No. 44 WHOLESALE FRUIT
MARKET, MELBOURNE.

Growers in all States are invited to
send consignments. Highest market
rates and prompt settlements.

Telephone: Store F4874;
Bankers: Private F1555 & F8711.

Commonwealth Bank of Australia.

2500 Fidelity Bond Guarantee.

A. E. PITT

Established 1893.

Member of Wholesale Fruit
Merchants' Association of Vic.
14 WHOLESALE FRUIT
MARKET, MELBOURNE

Consignments Solicited from all
States.

Growers Will Receive Top Market
Value and Prompt Returns.
Fidelity Bond Guarantee for £1,000

Peas and Bean Stands,
11 and 12 Victoria Market.
Reference—E.S. & A. Bank,
Elizabeth St. Branch, Melbourne.
Phone: F 5023.

Port Line

... REGULAR SAILINGS ...
of Fast Vessels to the U.K.
and Continent, having well
equipped holds and machinery
for the carriage of Refriger-
ated and Chilled Produce.

Commonwealth and Dominion
Line Ltd.

1 to 7 Bent St. Sydney, N.S.W.

VICTORIAN, NEW SOUTH WALES,
QUEENSLAND, SOUTH AUSTRALIAN,
TASMANIAN GROWERS.

Export Apples, Pears and Plums—1937.
It pays Growers to Export
To the English and Scotch Markets
this season to obtain the best
average returns for their
Pears, Plums and Apples,
And if

You Want Genuine Satisfaction and
Highest Returns, send them to—

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COVENT GARDEN, LONDON.

And at Liverpool, Hull, Glasgow
(Established 36 Years.)

A firm which holds the highest repu-
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Service cannot be bettered.
All particulars and advice re Advances
and Shipping will be supplied by:—
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Sydney, New South Wales.

International Fruit & Mercantile Co., 6
Wholesale Fruit Markets, Franklin-
street, Melbourne, Victoria.

A. J. Walsh & Co. (1937) Pty. Ltd.,
45 Davey St., Hobart, Tasmania.

Murdoch Bros. Pty. Ltd., Market-place,
Hobart, Tasmania.

Pitts & Lehman Ltd.—Sole Representa-
tives for New South Wales, Queens-
land and South Australia.

PEARS FOR EXPORT.

List of Recommended Varieties and Those on the "Danger List."

At the recent annual conference of the Australian Apple and Pear Export Council, held at Sydney, it was decided that the following varieties of Pears be placed on the recommended export list: Beurre Hardy, Beurre D. Anjou, Beurre Bosc, Doyenne du Commerce, Josephine, Packham's Triumph, Winter Cole, Winter Nelis, Madame Cole, Glou Morceau, Easter Beurre, and Duchesse de Angouleme.

The following varieties recommended for 1938 only, and then to come up for review:—Black Achan, Howell, Marie Louise, Doyenne Bossuch, Lemon Bermagot, Vicar of Winkfield, Williams Bon Chretien, Winter Bartlett, Giblins Seedling, Beurre Britton, Middleton, Keiffer.

All other varieties to be excluded from export, including the following, which had been permitted export up till the 1937 season:—B. de Capiaumont, L'Inconnue, B. Diel, Broom Park, B. Clairgeau and P. Barry.

Growers are asked to note the foregoing, so that the necessary re-working can be proceeded with.

MANY FRUIT BY-PRODUCTS.

Apples providing Much Scope.

Potatoes Have a Place, Too.

The manufacture of fruit by-products is being developed rapidly in most producing countries, and Apples are receiving a big share of attention in this direction. Included in the search for by-products from Apples are the means by which they can be converted into dried Apples, Apple juices, vinegar, pickling bases and preserving media, Apple flakes similar to Potato flakes already well-known and popular, Apple powder for use in culinary pursuits and Apple crisps, used as a breakfast food as well as a confection.

Peaches, Prunes, Apricots and Dates all lend themselves to the new experiments, but, so far, no such success has been obtained from Pears. The various processes examined to date make possible the use of low-grade fruits that, up to now, have been a dead loss to producers.

Potatoes also have been found to provide the source of celluloid as a substitute for glass. A Dutch scientist has recently proved that the starch of Potatoes can be treated in a manner that will produce a transparent substance that can be drilled, sawn, turned and laminated. It will not burn readily, but will allow the passage of ultra-violet rays and the cost of production is extremely low.

MR. PETER PATRIKEOS PASSES.

Well-Known Wholesaler.

On November 29, Mr. Peter Patrikeos passed away at the early age of 51. He was highly respected in the fruit industry and well-known in Victoria, New South Wales and Queensland. He had been in the fruit business for more than 20 years, first in William-street, then at the Flinders-street Viaduct, and removed to the present wholesale markets when they were first opened.

He came to Australia about 35 years ago, and his only commercial interest has been fruit. A very large number of representatives of the fruit trade attended his funeral at the Fawkner Cemetery. To his widow and six children the trade tenders sympathy. The business will be continued by the family under the management of a brother, Mr. Eugene Patrikeos.

HOWARD AUTO-CULTIVATORS LTD.

In order to finance extensions to their present plant, the Howard Auto-Cultivators Ltd., of Sydney, have decided to offer to present shareholders 50,000 £1 shares at par in the proportion of one to two now held.

This will represent a subscribed capital of £150,000. with a nominal capital of £250,000. The company reports a very successful year during 1937.

APPLE AND PEAR GROWERS' BOUNTY.

SPECIAL claim forms for the use of Apple and Pear growers in Victoria who desire to participate in the bounty of 2½d. per bushel case provided by the Commonwealth Government are now available at post offices in the districts concerned.

Payments under the Act are to be restricted to fruit growers who satisfy the Victorian Fruit Growers' Relief Committee that they have exported or sold for export from the Commonwealth Apples or Pears grown by them during the 1936-37 season, provided that such fruit was actually exported from the Commonwealth during the year ended December 31, 1937.

In order that claims may be dealt with promptly, claimants are urged to comply strictly with the following conditions:—

1. Supply in detail all information required on the special claim form. All writing must be in ink, and unless forms are completed, they will not be accepted.
2. Have the declaration on the form attested by a Justice of the Peace or a Commissioner for taking Declarations and Affidavits.
3. Forward the completed claim form, supported by account sales in respect of all c.i.f. or consignment sales, and by statements of accounts

from the purchaser or exporter in respect of all f.o.r., f.o.b., or other sales, to reach the Orchard Supervisor for the district as early as practicable, and not later than June 30, 1938. A list of Orchard Supervisors appears on the claim form.

4. Each party to a sharefarming agreement must submit a separate claim in respect of the Apples and Pears on which he is entitled to claim for payment.

In the event of forms not being available at Post Offices, they may be obtained on application to the Fruit Growers' Relief Committee, Department of Agriculture, Melbourne, C.2, from whom any further information may also be obtained.

"New records are likely to be established this year in respect of two important seasonal traffics dealt with at Southampton. During the past few months importations of timber and South African citrus fruit have been exceptionally heavy, and, although in each instance seasonal shipments have not yet terminated, in the case of the latter traffic an aggregate tonnage exceeding the record figure of 1936 has already been attained. Since June more than two million packages of this citrus fruit have been dealt with, and on one occasion four ships were in dock together discharging a total of 186,000 packages."



Licensed under Farm Produce Agents Act.

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ESTABLISHED 1894.

Fruit Commission Agent

SHIPPING NO. 56.

HIGHEST MARKET PRICES

PROMPT RETURNS

RELIABLE ADVICE.

Registered Address for Telegrams and Cables: "CHILTONS."

References:—Bank of N.S.W., Haymarket, Sydney, and Growers throughout Australia.

CITY FRUIT MARKETS, SYDNEY.



Fruit and Produce Company

Licensed Farm Produce Agents. (No. 2253)

HEAD OFFICE: No. 2 Steel St., NEWCASTLE.

BRANCH: No. 6 City Markets, SYDNEY.

References: Bank of N.S.W.

Telegraphic Address: "NANDA."

PHONES: Newcastle 1365, Sydney MA 8428.

We want your business, in return, we offer good and prompt Service.

Further particulars and Shipping Numbers on Application.

GROWERS!—Consign your Fruit to—

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SHIPPING NO. 19.

88 VIC. & TAS.

Stenols, Advice Notes, etc., on Application.

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Sales Personally Supervised. Prompt Advice and Returns. SHIPPING NO. 127.

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Fruit Selling Expert.

Municipal Markets, Sydney.

Shipping No. 83.

Established 1900.

CONSIGN YOUR FRUIT TO

HOPKINS & LIPSCOMBE

Proprietor: STANLEY H. FOGSON.

LICENSED FARM PRODUCE AGENT.

MUNICIPAL MARKETS, SYDNEY.

PROMPT RETURNS.

SHIPPING NOS.—

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Bankers: Bank of N.S.W., Haymarket, SYDNEY.

Telephone MA 2445.

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Licensed Farm Produce Agents.

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Our Motto—Quick Sales and Prompt Settlements.

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Send Your Consignments

TO US

MELBOURNE & SYDNEY.

Regular Consignments of well Packed and Graded Fruit Realize

Best Prices.

Unfermented Fruit Juices

International Congress Report

At an International Congress held in Germany in August last, the rapid development of the utilisation of unfermented fruit juices was discussed. The New Zealand Government, conscious of the importance of the Congress, was represented by Mr. Nevill Wright and Mr. H. Turner, London manager of the N.Z. Fruit Export Control Board.

Over 200 delegates from 18 countries attended the Congress, which was held under the patronage of the Reich Minister for Food and Agriculture. The latest development of the fruit juice industry aims at the preservation of the natural flavor of the fruit without fermentation, and without preservatives being used. There seems to be no limit to the number of fruits that can be so treated, and samples of juices from Apples, Grapes, Cherries, Strawberries and Red Currants were submitted to the Congress.

The general impression has been that the most successful method of extracting these juices is by the cold

filtration system, by which the fruit is first crushed, as for cider, and the juice then forced through a series of filters in the form of perforated metal plates with sheets of prepared asbestos sandwiched between. The juice is stored in glass-lined tanks, and in most cases is re-filtered before being finally bottled, the whole process to the final bottling being carried out under hygienic conditions which prevent the entry of any micro-organisms likely to lead to fermentation. The cold process has been largely advertised, and some excellent plants were on exhibition by different makers, but personal contact and insistent enquiry amongst various delegates and research workers seemed to indicate a definite swing towards pasteurisation, or, as it is termed, the warm method.

Hitherto it has been claimed that pasteurisation, while a safeguard in the sterilisation of the juices, was likely to destroy part of the vitamins in the process, and from this point of view was inferior to the cold process.

This point is being closely investigated, but the general opinion seemed to be that the point was a moot one, and it would not be surprising to find the warm method finally preferred. Under the latter method it was admitted that in the early stages a slightly "cooked" flavor might be detected, but that this would disappear in a month's time, and the fruit juice would then keep indefinitely. The warm process would probably be slightly less costly than the cold, but both have their advocates, and at the moment the preponderance of the plants in operation are of the cold process type.

It would appear that the manufacture of pure fruit juices is well under way in most European countries, while South Africa has in operation one of the largest plants in existence, which is being used at the moment exclusively for the manufacture of Grape juice. This is being marketed in the United Kingdom, and, it is said, is being used by wine manufacturers in this country as a base for their various wines.

The question of concentrated fruit juice was dealt with in more than one paper, and it seems likely that this will be a practical proposition in the

near future. It is claimed that the concentration would reduce the juice to one-seventh of its natural bulk, which would be a valuable point in storage and transport, but meantime the main effort is concentrated upon the production of the pure fruit juice.

NEW FRUIT VARIETIES.

America Develops Most.

Regular reports come from all fruit producing countries of new or sport varieties that are developed either as entirely new breeds, as adaptations of established varieties to local climatic conditions, or as importations from abroad discovered to be amenable to acclimatisation.

Three new varieties of Peaches, destined to play a part in the California deciduous fruit industry in the next few years, reports Geo. P. Weldon, Pomologist of the Chaffey Junior College. Each is of an early leafing strain and include a yellow freestone, a white freestone and a yellow clingstone. The three new varieties represent 15 years of experimentation.

Melons seem to be a possible avenue for experimentation in the United States, where the Cantaloupe is exceedingly popular. North Dakota Agricultural College reports a new Cantaloupe of excellent quality which matures earlier than the general Dakato Melons, and is therefore destined to receive a warm welcome. The new arrival has been named the Zephyr, and is a cross between a Russian Melon grown extensively in North Dakota and Canada and the Milwaukee market, a large fine flavored melon. It is a prolific producer, and 5 tons were harvested from half an acre.

Another melon announced is the Globo de Ora. It is a cross between a Honey Ball and a Hales Cantaloupe, and gives a rich, full-flavored flesh, with good market appearance. The sponsors of the new variety have introduced many new melons successfully to the American market.

CONTROL OF VIRUS DISEASES OF TOMATOES.

Concerning the question whether the use of tobacco dust is likely to result in establishing Mosaic (virus) diseases in Tomato crops, a note in the current N.S.W. "Agricultural Gazette" states that the tobacco Mosaics are fairly resistant to normal manufacturing processes, and smoking tobaccos have been proved to carry viruses capable of transference to Tomato plants. Smokers who work among Tomatoes may unwittingly infect living plants with the virus contained in particles of tobacco adhering to the hands. Once infection is established in a plant, every subsequent handling may spread infection to adjacent plants.

Tobacco dusts for insect pest control which have been recently examined by the Biological Branch of the Department of Agriculture, however, are subjected during manufacture to temperatures in excess of those required for destruction of tobacco virus. Inoculation tests, also, have demonstrated that this material is not infectious.

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MORAY PLACE, DUNEDIN.

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Orchard Fruit Supplies CO.,

FRUIT MERCHANTS AND
BANANA RIPENERS.

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Leading Country Order Business
for Central West of Queensland.

Send Sample Consignment and
Arrange Prices for Season.

Brand—
ORCHARD, R'TON, QLD.

Good Fruit . . .

WELL GRADED AND WELL
PACKED ALWAYS FINDS A
READY SALE IN QUEENSLAND.

Do not run any Financial Risk with your Fruit
but Consign it to

HEDLEY GEEVES PTY. LIMITED

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BRISBANE

SELECTED AGENTS FOR:

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd.
Harcourt Fruit Supply Co. Ltd.
Victorian Central Citrus Assn. Ltd.

Tasmania: State Fruit Advisory Board.
New South Wales: Griffith Producers' Co-op. Co. Ltd.
Badlow Packing House Co-op. Soc. Ltd.

Established 1911.

Interstate Market Notes & Prices

FRUIT PRICES IN THE SYDNEY MARKET.

Survey of Operations for the Period
October 25 to November 25, 1937.

COOL weather with intermittent periods of rain have characterised the period under review, and, whereas rain damaged the early Cherries in the Young district, and induced fungal growth amongst the Apricots and Plums from the older orchards near Sydney, the period has been one in which fruit has kept fairly well. The demand for Valencia Oranges continues steady, but public money was attracted by the cheapness of early Summer fruits and the high values expected by some growers for their Oranges did not materialise. The Apple position improved a little for sound types, but this applied chiefly to the N.S.W. Granny Smith, and vendors of the Tasmania product reported the continuance of difficulty in clearing over-matured types. Queensland Tomatoes were supplanted by those from the Central North Coast of New South Wales, which district is now at its peak of marketing. The concern of agents, which for so long had been Apples, in turn became early Cherries, and, at the present time, the over supply of the Wilson variety of Plum is engaging attention. The season has been a propitious one for the development of fruit, and Plums, Apricots, Cherries and even Gooseberries are showing larger size than has been the case for some years.

Amongst the new season fruits that have appeared are Mangoes, Rock Melons and Cantaloupes from Queensland, and the same State also forwarding Passion Fruit, owing to the N.S.W. supplies practically ceasing.

Several shipments of Oranges have journeyed from the Murrumbidgee Irrigation Area to the New Zealand market since the lifting of the embargo, the fruit generally being of good, sound quality. Some difficulty has been experienced in securing the quantity necessary to fill the space booked upon vessels, and packing houses appear to have been working to their utmost capacity.

Apples: Fancy and Good. Quoting in three groups (1) 3 in. and over, (2) 2½ in. to 2½ in., and (3) 2½ in. and 2½ in.:—Allsops Seedling (N.S.W., local), —, 4/- to 6/-, 3/- to 4/-; Crofton (Tas.), 7/- to 8/-, 7/- to 9/-, 5/6 to 7/-; Del. (N.S.W.), 14/- to 18/-, 14/- to 18/-, 10/- to 14/-; Demo. (N.S.W.), 8/-, Tas., 6/- to 7/-, 5/6 to 8/-, 5/- to 6/-; F.C. (Tas.), green 2/6 to 5/6, 2/6 to 6/-, 2/6 to 4/6; G.S. (N.S.W.), 11/- to 14/-, 11/- to 14/-, 8/- to 12/-; S.P. (Tas.), 2/6 to 5/-, 2/6 to 6/-, 2/6 to 4/-; Yates (N.S.W. to 10/-), Vic., —, 7/6 to 9/6, 5/- to 8/-. Extra Fancy higher, domestic 1/- to 2/- lower.

Apricots: N.S.W., Inland 5/- to 7/-, few 8/- per half case; local, most sales 2/- to 5/-, few specials 6/- to 7/-, inferior unsaleable per half case.

A few appeared from Yenda early last week. Local supplies have been mostly very small, but some better quality fruit is now appearing.

Bananas: N.S.W. and Queensland, Regulation graded, first quality fruit. Six, seven, eight and nine inch fruit, 16/- to 23/- per tropical case. Fully colored and over ripe fruit lower—specially selected country order fruit higher.

Cherries: N.S.W., Orange District. Most sales 3/- to 3/6, few 4/-. Young District Margarets, 4/- to 5/-; small fruit from both districts from 2/- per quarter bushel case.

Citrus Fruits.

Grapefruit: N.S.W., local 2nd crop, 4/- to 8/-; main crop, 5/- to 10/-, few to 14/- per half bushel. Inland, 8/- to 10/-, few 12/- per bushel. Two-bushel crates 15/-.

Lemons: N.S.W., Special and Standard. Local, counts 88 to 138, 3/- to 5/-; counts 150 to 252, 6/- to 8/-, few 9/- bush. Plain grade, 2/6 to 4/6; inland, 7/- to 11/-; cured, to 12/- bush. Vic., 9/- to 12/- bush. Two-bushel crates 10/- to 16/-.

Valencias: N.S.W., Special and Standard. Local, counts 80 to 96, 7/- to 8/6; counts 113 to 175, 8/- to 9/-, few 11/-; counts 180 to 252, 5/6 to 7/- bush. Plain grade 4/- to 6/- bush. Inland, 7/- to 10/- bush. Two-bushel crates 10/- to 14/-, few higher.

Mandarins: N.S.W., second crop, local, Emperor, 1/- to 5/-, few special 6/- to 9/-, few 10/- per bushel. Small and green unsaleable.

Gooseberries: Young, 3/- to 5/-, few special to 6/- quarter bushel case. Tasmanian, 4/6 to 6/- half bushel.

Grapes: U.S.A., per 34 lb. net of fruit, 28/- to 29/- per case. These are now cleared.

Mangoes: Queensland, Turpentine, 3/- to 4/- half bushel. Apple 6/- to 7/6 half bushel.

Peaches: N.S.W., local, most sales 4/- to 7/-, few higher, inferior lower half bushel.

Plums: N.S.W., most sales 1/- to 3/-, few large 4/- to 6/- half case.

Papaws: Q'land. and N.S.W., 10/- to 16/-, few higher per tropical case.

Passionfruit: Q'land., 10/- to 16/-, special 18/-, few higher half bushel. N.S.W., 14/- to 18/-, small 6/- to 12/-, inferior from 3/- half case.

Pineapples: Q'land., 8/- to 14/-, few higher per tropical case.

Rock Melons and Cantaloupes: Q'land. 7/- to 10/- bush. Two-bushel crates to 16/-.

Strawberries: N.S.W., 4/- to 8/-, few 12/- per dozen boxes.

Tomatoes: N.S.W., Central North Coast, 3/6 to 5/-, special 6/-, few higher; metropolitan, 1/- to 5/- per half bushel. Victorian, 6/- to 10/- bush. Q'land., 1/- to 3/6, few higher per half bushel. Repacked, 4/- too 7/- per half bushel.—L. T. Pearce, Market Representative, Fruitgrowers' Federation of N.S.W.

THE BRISBANE MARKET.

Writing under date November 19, Messrs. Hedley Geeves Ltd. report as follows:—

Owing to the large quantities of Apples held in Australia this year for late marketing, the prices have been very disappointing. Brisbane Cool Stores have been carrying around 60,000 cases, mostly Tasmanian Sturmers and Democrats, Victorian Yates, and N.S.W. Granny Smiths. As shipments from Tasmania and Vic-

toria have been very consistent in quantity, we have had very little opportunity to reduce cool store stocks.

Values throughout September and October were particularly low for Sturmers and Democrats, mainly 4/6 to 6/6, with Yates in fair demand to 8/- for sizes 2½ in. to 2½ in., with a poor demand for small at 4/- to 6/6. At this time Grannies were realising 8/- to 10/- for sizes 100 to 150.

At time of writing supplies from Tasmania have eased considerably, probably 50 per cent., but Victorian shipments continue to arrive regularly in about the same quantity as last month. The easing of Tasmanian supplies has enabled us to reduce stocks from cool stores, and the quantity held has been lessened to a total of probably 15,000 cases. It will be seen that the easing off in Tasmanian shipments helped us to sell from stores here, and this was by good luck, and not good management. As a matter of fact, the very low returns going back to Tasmania in September was a big factor in shortening supplies to this market in late October and early November.

Yates are now in moderate demand at 8/- to 9/- for halves up and according to quality, with a slow sale for quarters at 5/6 and three-eighths 6/6, Democrats 6/- to 8/6, Sturmers 6/- to 7/6.

As Tasmanian Sturmers are coming out of cool stores in poor condition,

The PRINCIPAL Fruit Merchants and Exporters of SOUTH AUSTRALIA

SILBERT, SHARP & BISHOP LTD.

FRUIT MERCHANTS — EXPORTERS — COMMISSION SALESMEN
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ENQUIRIES ARE INVITED BY ADVERTISERS ON THIS PAGE FOR FRUIT FOR EXPORT OR SALE ON THE ADELAIDE MARKET

it is quite possible that Victorian Sturmers will shortly come into favor, as it is usual about this time of the year for buyers to turn their attention to good Sturmers, in which case the sale of Yates would suffer.

We are still receiving small lots of Jons. from Victoria, and some which we sold this week were of very good quality and condition, the top price being 11/- for 2½ in., whilst the 2½ in. size sold at 7/-.

The stone fruit season is now in full swing, values for these being:—Plums, N.S.W., Wilsons, 5/- to 10/- half case; Peaches, Queensland, 5/- to 9/-; Cherries, N.S.W., Lyons to 6/- 12 lb. box, Nobles to 5/-, Florence to 9/-, Margarets to 10/-; Oranges, Valencias (N.S.W.), to 13/-; Lemons, cured, 150 to 216, to 12/-; Apricots, N.S.W. and Q'land., to 14/- per half gin case.

Brisbane (20/11/37).—Messrs. Clark & Jesser report as follows:—Stone fruit has come in very plentiful and the heavy supply of Plums that has come on the market for the past fortnight has caused the price of this commodity to slump rather badly. The ruling values at present are:—Apples: Croftons 9/- to 10/-, Sturmers 5/- to 7/-, Yates, 2½, 2½, 8/- to 9/-, smaller sizes 5/- to 6/-, F.C. 6/- to 7/-, G.S., choice 12/- to 14/-. Pears: W.C. & Jos. 14/- to 15/-, W.N. 13/- to 14/-, Broom Parks 11/- to 12/-. Oranges: Vals. 10/- to 11/-. Lemons: 10/- to 11/-. Cherries: 6/- to 7/6. Peaches: 5/- to 7/-. Apricots: 9/- to 11/-. Plums: Wilsons in heavy supply, large, 7/- to 8/-, small 4/- to 5/-. Passionfruit: 14/- to 15/-, tropical case. Bananas: 16/- to 19/- per case. Tomatoes: 6/- to 7/-.

Brisbane (11/11/37).—Messrs. Robsons Pty. Ltd. report as follows:—Apples: Demo, 7/- to 8/6, Sturmers 4/- to 7/-, Yates 5/- to 9/-, G.S. to 11/-, F.C. 5/- to 7/-. Citrus: Oranges 8/- to 12/-. Lemons: Gayandah 8/- to 13/-, others 7/- to 10/-.

Pears: W. Coles 12/- to 16/-, W.N. 9/- to 15/-, M. Cole 10/- to 12/-.

Tropical Fruits: Papaws 8/- to 10/-; Smooth Pines to 8/6, roughs to 12/-; Mangoes 5/- to 7/-; Bananas 11/- to 17/-; Passion fruit 12/- to 16/-; Stone fruits: Cherries 3/- to 7/-; Apricots 7/- to 12/-. Tomatoes: 2/- to 5/-.

Brisbane: Messrs. W. Arkell & Sons, writing under date November 22, report sales as follows:—Apples: G.S., specials, ¾ in. to 3 in., 9/- to 13/-; Croftons, choice, ½ in. to ¾ in., 9/- to 11/-; Dem., choice, ½ in. to ¾ in., 8/- to 9/-; S.T.P., choice, ½ in. to ¾ in., 5/- to 7/-; Yates, choice, ½ in. to ¾ in., 7/- to 9/-; F.C., green, 5/- to 7/-. Oranges: choice 138-153, 10/- to 11/-; small and large, 8/- to 10/-. Pears: W. C. & Jos., choice, 11/- to 15/-. Lemons: choice, 9/- to 12/-, few specials higher. Cherries: choice, 5/- to 7/-; other, 3/- to 4/-. Plums: Wilson, 5/- to 8/-; others, 3/- to 6/-. Peaches: 3/- to 6/-. Apricots, choice, 7/- to 10/-.

Choice Apples are selling freely. The market is oversupplied with Plums and early Peaches, and values are likely to fall.

VICTORIA.

Market Report for November.

SALES in the Wholesale Fruit Markets improved during November, but fluctuations occurred according to weather conditions. Tomatoes suffered from the hot spell at the end of the month, opening up boiled or softened by the heat. Apricots came in a week earlier than usual, and Peaches just began to arrive as the month ended.

Citrus: Washington Navels ran out, but Valencias experienced a good demand, with supplies slightly down. Prices were firm right through. Lemons sold normally up till the last week, when supplies dropped off and prices rose. Grapefruit suffered general wastage during distribution, the keeping qualities breaking down and prices dropped.

Apples: No heavy clearances. Grannies and Democrats sold best, others on slow side.

Pears practically ran out during the month except for a few Packham Triumphs and fewer Josephines.

Apricots made a firm appearance in second half, quality was uniformly

good and sold well to a good demand.

Peaches appeared in last few days of the month. Very small but of good quality in general. Demand medium but growing.

Berries: Strawberries maintained a good market, but the dry hot weather lessened both supply and size quality. Prices were good. Loganberries, fair supplies and affected by similar hot, dry condition. Good demand for what offering. Raspberries, quality poor and supplies light, rain would have helped in the last half.

Passion Fruit: Small supplies from Queensland, no local supplies. So well to a limited demand.

Bananas eased during hot weather of the middle to end of month. Demand light.

Tropicals: Mangoes and Papaw had a limited demand to only moderate prices. Mango quality down. Cantaloupes from Queensland appeared and landed in good condition. Demand equal to supply.

Peas and Beans both suffered fluctuating demand according to the weather. Generally the position was satisfactory.

SOUTH AUSTRALIA.

Adelaide (3/12/37).—Apples (eating) 6/- to 7/- case; Apples (cooking) 5/- to 6/-; Apricots 9/- to 10/-; Bananas (Q'ld.) 21/- to 25/-; Cherries (dark) 14/- to 19/-; Cherries (light) 15/- to 16/-; Lemons 8/- to 9/-; Loquats 10/-; Oranges (common) 6/- to 9/-; (Navel) 9/- to 10/-; Peaches 16/- to 17/-; Pineapples 20/-; Plums (light), 4/-; Plums (dark) 5/-.

WESTERN AUSTRALIA.

Perth (29/11/37).—Apples: Dunn's, dumps, 10/- to 13/6; R.B., 10/- to 15/6; Yates, 8/6 to 18/-; G.S., 10/- to 20/6; Nickajack, 10/- to 12/-; Rokewood, 11/- to 13/6. Citrus: Vals., flats, 4/- to 9/6; dumps 6/- to 13/6; Navels, flats, 6/- to 10/6; dumps 8/- to 12/6; Lemons 3/- to 7/6. Stone fruit: Peaches 3/6 to 12/6; Apricots 2/6 to 9/-; Loquats 3/6 to 9/-.

NEW ZEALAND.

Dunedin (19/11/37).—Messrs. Reilly's Central Produce Mart Ltd report that increased supplies of fruit and vegetables are being received.

Good dessert Apples are in short supply, and any good quality lines are bringing satisfactory values.

Increased supplies of Strawberries are being received. Owing to the dry conditions the season is likely to be rather short, and values for this time of the year are rather below expectations. Cherries are also coming to hand in larger quantities.

A shipment of Oranges is due by the "Waikouaiti" on the 23rd, and should relieve any shortage, and with a full shipment arriving by the "Maunganui" a week later, ample supplies of Oranges should be available. N.Z. Lemons have a much better inquiry at increased prices. Cal. Grapes have a steady sale.

Increased supplies of Christchurch and local hothouse Tomatoes are coming on to the market, and values are slightly lower. Better supplies of Gooseberries are now available.

The "Maui Pomare" is due in Lyttleton on the 22nd with a shipment of Niue and Samoan Bananas, the Dunedin portion being due on the 23rd.

Prices (per case): Cal. Lemons 67/6, Grapefruit 40/-, Grapes, Empers, Almerias 32/6; Bananas, ripes 26/-; Pines, to 25/-; Apples, Del. choice 8/- to 12/-, Sturmers 7/6 to 10/6, inferior grade dessert Apples 2/- to 3/6, cookers 4/- to 6/6; N.Z. Lemons 15/- to 18/-.

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Cause of Cherry Cracking

Wet Conditions Blamed.

ATEN-YEAR study of the problem of Cherries cracking has just been concluded by the Idaho Experimental Station, and has revealed some interesting findings, as reported in "Better Fruit."

Faulty irrigation practices, formerly thought by many growers to be responsible for cracking, seem to have but little to do with it. In the Idaho experiments, conducted at Lewiston, cracking has never been observed except during rainy periods. When cracking has occurred the damage has not been any greater on heavily irrigated trees than on trees lightly irrigated. Light irrigation early in the season, followed by very heavy irrigation at harvest time has not resulted in more severe cracking than under any other system of watering.

Rain Effects.

The explanation of cracking in sweet Cherries seems to lie principally in the tendency of this fruit to absorb water directly through the skin when the Cherry remains wet for a prolonged period. As a Cherry ripens there is a rapid increase in the amount of sugar in solution in the juice of the fruit. This sugar solution has a strong attraction for water. When the fruit becomes wet with rain, or is placed in a tumbler of water, some of the water is drawn through the skin of the fruit to the sugar solution inside. The skin expands and the Cherry becomes full and firm from the water so absorbed. If this process continues long enough, as it does in the case of a prolonged rain, a point is reached where the skin no longer can stretch to take care of the rapidly increasing size of the fruit and cracking occurs.

These are the only conditions under which Cherries have been observed to crack during the course of the experiments referred to. Large branches of Cherries kept dry by means of tarpaulins spread over specially constructed frames had no cracked fruit, even though the soil about the roots of these trees was thoroughly soaked. Fruit on unprotected branches cracked severely.

APPLES GIVE ENERGY. SAYS AUSTRALIAN DOCTOR.

Investigation work by the Nutrition Council in Australia has proved the food value of Apples. Dr. Harvey Sutton, Director of the School of Public Health and Tropical Medicine, Sydney, states that the Apple equals the average Potato in food value, and it is definitely superior to any other vegetable except the Sweet Potato. Not only is the energy available fairly high, but the sugars present, fructose, glucose, etc.) are readily obtainable. These Apple sugars are more easily digested and used by the body than the starch of the Potato and Banana or the sucrose of Peaches and Apricots.

Minerals and Vitamins in Apples.

The Apple thus ranks high among the fruits and vegetables for its energy content, but it also contains minerals and vitamins for growth and health. Useful amounts of four different vitamins are found in the Apple. Even when kept for a few months Apples still retain most of their Vitamin C, especially valuable in the back country, where there is often a lack of vegetables. Sallow skin, unhealthy gums and vague pains, sometimes called rheumatism, are suggestive of a diminished supply of Vitamin C, which may be remedied by eating Apples every day.

Plums for Queensland

New Grade Standards.

The Superintendent of Horticulture, Mr. J. M. Ward, has received from the Queensland Department of Agriculture particulars of the new grade standards for Plums sold in Queensland. These require that each case shall be stamped or stencilled with the name of the variety, the grade and size, the initials of the christian names and the full surname and address of the packer. For the purpose of grades the varieties have been divided into two groups. The first group includes Early or Little Gem, Evan's Early, Blue Rock, Tibbits, Early Orleans, Damson, Cherry Plum, Doris, Duffy's, Paterson Early, Wilson, Angelina Burdett, Wright's Early, Santa Rosa, President and Grand Duke. The special grade for this group provides for a minimum diameter of 1½ inches with 1½ inches for standard and 1½ inches for plain. Plums under 1½ inches in diameter, but with a variation of not more than ¼ inch in the diameters of the Plums in any case may be packed as "small" grade.

The second group includes the varieties Burbank, Pond's and Giant Prune, Black Diamond, Magnum Bonum, Coe's Golden Drop Shipper, Kelsey, Wickson, Ballina, Shiro, Beauty, Formosa, Sultan, October Purple and Narrabeen. The minimum diameters for this group are special, 2 inches; standard, 1½ inches, plain, 1½ inches, and small under 1½ inches.

APPLE GROWING IN PALESTINE.

Colonel Hughes, Australian Trade Commissioner in Egypt, recently advised the Department of Commerce at Canberra as follows:—

Local fruit orchards have been considerably expanded recently. In 1935-36 the area under Apples rose to 1,816 acres, with a production of 1,100 tons. Palestine Apples fetched an average price of £12 sterling per ton. The import of Apples is still heavy, consignments coming chiefly from Canada, U.S.A., Italy, Turkey, Cyprus, Syria and Australia. As against an import of 2,031 tons of Apples, valued at £30,811 sterling in 1932, figures for 1936 showed an import of 7,021 tons, representing a value of £156,957 sterling.

Poultry Notes—

BLUE BLOOD IN THE FARMYARD.

Hens Have a Social Order.

PERSONS who run large groups of fowls know that the males seem to have a predisposition towards certain females, even when the flock appears to be quite uniform and of related breeds, but "Eggs" (Eng.) suggests that there are strata of society which are recognised and observed amongst the ladies of the flock. We can imagine Mrs. Leghorn lauding it over Mrs. Wyandotte occasionally, especially when the former lady has on a brand new dress of new feathers, but the writer claims that the social order goes deeper than that, and that hens, like elephants, never forget. He continues:—

American naturalists have been observing hens, and have discovered that a definite social order exists among the birds.

Status is decided by pecking. One hen can peck another hen without being pecked back, and a third hen can peck still a fourth without fear of retaliation. The rooster stands at the head of this social system, but beneath him, in a definite social order, are arranged the various hens. This social system does not owe its existence merely to strength. Bluff or circumstances frequently enter into the establishing of an order. If two hens, strangers to one another, should meet, the first one to be frightened becomes subordinate to the other in the social system.

A hen high in the social system does not ordinarily peck those low in the system. The others give way to her whenever she appears. On the other hand, the hen low in the system may be very cruel towards its subordinates.

The social system plays an important part in the life of the hens. Those low in the system secure less food and are unable to keep themselves as neat as the hens near the top of the order. A sick bird drops to the bottom of the social system, because there is little sympathy among hens, or possibly because the other hens fail to recognise the sick individual as one of their group.

Hens may keep their position in the pecking order through life. They remember other individuals in their set after isolation of half a year. Among birds only parrots are superior to hens

in the length of time they can remember faces. Pecking orders are found in many groups of animals, but are often modified by other social factors.

INDICATIONS OF SEX.

Picking Out the Cockerels.

FOR those small poultry farmers who breed their own stock, do not go in for chick sexing and have to wait until the sexes can be determined, the following may be helpful.

There are other means of differentiating between the sexes, but they cannot be applied until the birds are anything from four weeks to six weeks old. The heavy breeds, of course, develop sex characteristics outwardly more slowly than the light breeds.

Roughly, at five to six weeks old in the heavy breeds, and slightly younger in the light breeds, the comb of the cockerel is of medium size and pink in color, while the pullet's comb is small and yellowish.

The legs are sturdy and long, being finer and shorter in the pullets. A stumpy, curved tail is a feature of the males, while in the females this appendage is longer and straighter. Down, with a thin line of stub feathers down the centre, is evident on the backs of the cockerels. The pullets feather more quickly, and there are more stubs down the centre and on the sides.

Feathering is retarded on the sides of the neck, crop and flanks of the cockerels. In the pullets it is well advanced. The wing bows of the females are covered with small feathers, while they are comparatively bare, showing only wing covert quills, on the cockerels.

The carriage of the cockerels is more erect and alert than in the pullets, which have a lower set. If a batch of chickens is frightened with a strange noise, usually the cockerels stand up straight, with an appearance of alert listening, and make a warning sound, but the pullets crouch silently.

The cockerels should be removed from the pullets as soon as they are discovered. The pullets will do better by themselves, and any weak or bashful birds will get a better show at the feed.

SPECIAL NOTICE TO FRUITGROWERS

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In response to numerous requests from growers for information as to who are members of the
Wholesale Fruit Merchants' Association of Victoria
the following list is given. All are members of the above Association, and are registered firms carrying on business in the

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Correspondence is invited by the Association.

Office : 21 Wholesale Fruit Market,
Queen Street, Melbourne. Phone F 4866.

Orchardists' and Fruit Cool Stores' Association of Victoria

Report of Quarterly Meeting

THE usual quarterly meeting of the above Association was held in the Commercial Travellers' Club, Melbourne, on November 23. In the absence of Mr. L. G. Cole, and the senior Vice-President, Mr. F. Petty, Mr. W. P. Mair took the chair.

The following delegates were present:—Messrs. H. J. Willoughby, W. P. Mair (Tyabb), J. H. Lang (Harcourt), G. F. Fankhauser (East Burwood), A. E. Hocking (Graceburn Valley), F. C. Pyke (private store), R. M. Finlay (Diamond Creek), F. J. Byrne and J. A. D. Finger (Wanatina), J. Williamson and D. Whitten (Doncaster West), J. G. Aird and H. Pump (Ringwood), T. H. White (Somerville), Robt. Langley (Croydon), N. Perry (Perry & Co.), R. Lawford (Blackburn), H. J. Noonan (Secretary), J. M. Ward (Dept. of Agric.), and E. E. Saunders ("Fruit World"). Apolo-

gies were received from Messrs. L. G. Cole, Mock, Fankhauser, Pearson and Gent.

After the minutes of the previous meeting had been read and confirmed, the business arising out of the minutes included a report from the chairman that the Government had determined that the Victoria Dock Cool Stores, recently destroyed by fire, would not be rebuilt. A copy of a letter sent by the V.F.M.A. to the Minister for Agriculture was read, asking that insurance money be held in trust for three years when its final disposition should only be made with the approval of all associations interested. Unfortunately, the Cool Stores' Association had no representative on the investigation committee.

A letter was read from the Post Master-General's Department, stating that the Department cannot accede to the request of the Association for an

increase of speech time on trunk line calls.

Publicity Finance: The Secretary reported that following the approval of a deduction of one halfpenny per case towards the funds for Apple publicity, the sum of £1,185/12/9 had been received to date, and about £40 more is still to come. Up to date payment to the Apple and Pear Control Council had amounted to £1,000, leaving a balance in hand of £185/12/9. A long discussion ensued regarding the method of publicity adopted by the co-ordinating committee, after which Mr. Willoughby moved that a special meeting of the Cool Stores Association be held during December, at which the Victorian representative of the co-ordinating committee be asked to attend and give the Association particulars of how the money was spent.

Automatic Sprinkler Systems: By permission of the chairman, Mr. Marriott, of the Automatic Fire Sprinklers Pty. Ltd., attended and demonstrated to the meeting the system of automatic sprinklers for fire protection. He produced enlarged drawings that showed the mechanism in action and stated that not only did an auto-

matic sprinkler system protect fruit stores and packing sheds from heavy losses by fire, but the lower price of insurance more than covered the cost of installation within a short period.

Hardwood Dump Cases: A letter was read from the Pakenham Cool Stores Pty. Ltd., forwarding a resolution that in view of the high price of imported cases the company is in favor of reverting to hardwood dump cases, and requests that the matter be placed before all fruit growers' associations. The letter was received.

Cost of Irrigation Water: Mr. Pyke reported that the State Rivers and Water Commission had been approached with a request to lower the cost of water for irrigation purposes on orchards to sixpence per thousand gallons. The deputation had been cordially received and now await a reply from the Commission.

School Holidays: A letter was received from the Chamber of Agriculture asking for the support of the Cool Stores' Association in a protest against the Department of Education changing the date of school holidays, by which attendance at the Melbourne Royal Show was affected. It was decided to support the protest.

Spray Programmes: The Secretary tabled two bulletins from the Dept. of Agriculture upon special mixtures and lures. As it was thought of benefit to the members, Mr. Saunders promised that a review of these circulars will appear in the next issue of the "Fruit World and Market Grower."

Mr. Carne's Report: The Secretary tabled a long report from Mr. Carne upon his investigations of the arrival and condition of Australian fruit in England. In view of the importance of this report the Secretary was instructed to make arrangements with the "Fruit World" for copies to be available to members.

Next Conference: The chairman invited suggestions to be put before the executive committee for the venue for the next conference, and stated that when conferences were held in country districts more business was done than when held in metropolitan areas. Four districts were suggested, Wangaratta, Mildura, Stawell and Pomonal. It was pointed out that the conference was usually held in May and therefore conflicts with orchard work on late varieties. It was decided to recommend that the next conference be held in June.

General Business.

The question of the out-turn of fruit from cool stores arose and delegates reported patchy results, which it was thought were due to seasonal conditions. Col. Lang reported that in Harcourt Jonathans stood out particularly well.

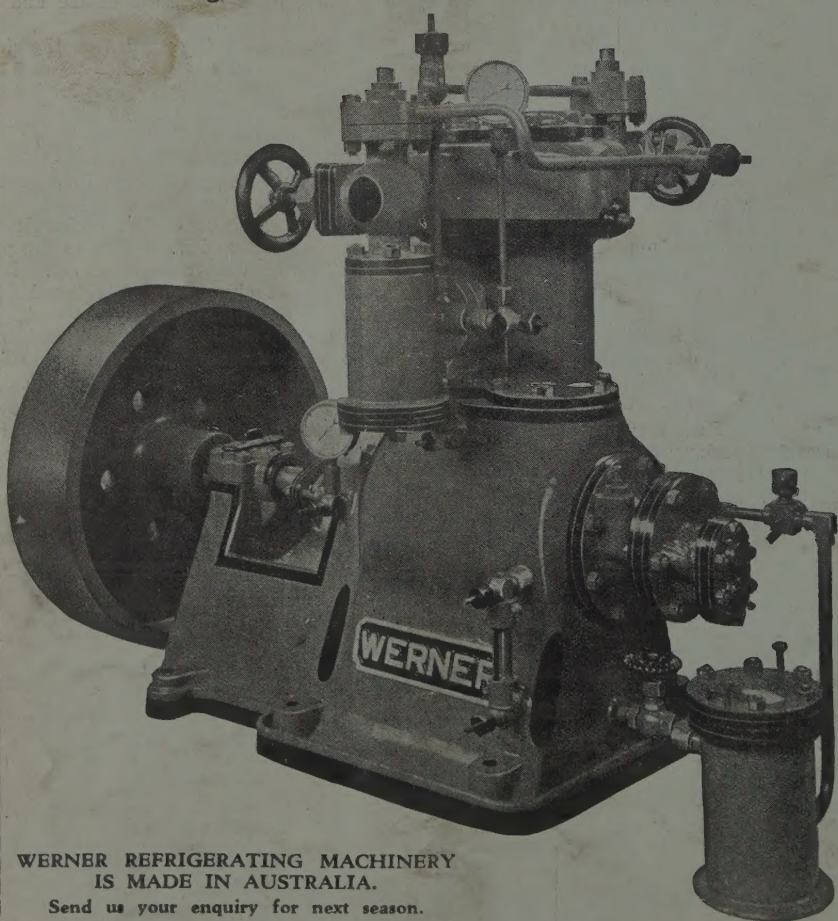
Fruit by Count: Mr. Pyke reported having visited a large retailer in one of the important suburbs who stated that selling by count would not do any good until it was made compulsory as the public are not accustomed to it, and although he had tried to introduce it, in the case of Apples, he had to go back to the weight system. He stated that it cost him less to sell Oranges than Apples because they could be handled with less overhead expense. The chairman stated that the matter of selling fruit by count had not been lost sight of. A deputation had already interviewed the Minister for Agriculture and the V.F.M.A. is now working on the problem and trying to co-opt the Housewives and Consumers' Associations with a view to a combined deputation to the Minister seeking the making of selling by count compulsory.

Reducing Crops: Mr. Pyke read a letter which he was submitting to the "Fruit World" upon the rather revolutionary subject "The Limitation of Crops by Stripping" to meet seasonal conditions and crop prospects. (The full letter will be found on another page of this issue.—Ed.)

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